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The "Clair-Obscur" of the Picture

With the harvest season at its height, gardens rioting with color, and sun-ripened, juicy fruit ready to drop into your palm at the lightest touch, who can settle down to very serious thinking? But perhaps this is just the time for me to talk shop quietly with you, while vacations are in full swing, nature is in a festive mood and even the patients seem to take a holiday. I have a story to tell you.

After a series of comparatively complicated events whose deeper significance remains hidden, you suddenly find yourself considered capable of doing editorial work. You can not foresee that skill with your pen alone is not enough to meet the requirements of such work. A decision is made, the editorial cloak is graciously laid about your shoulders, and you are in business.

From a distance and through the confident eyes of inexperience, editorial work presents no particular problems. Paper, pencils, an eraser, a dictionary or two and there you are! At first there is a certain feeling of creativity — well-written articles flow before your eyes like cool, fresh water from a fountain. A scholarly, well-expressed article is a joy. Information presented with confidence and conviction is readily assimilated. The intellectual side of editing appears to be somewhat like the work of an artist although really quite different. Both presuppose a technique acquired through study and practice. Certainly a natural aptitude is a prerequisite. But no one can deny that unless this natural gift or flair is properly developed, it will be unproductive.

A few weeks of apprenticeship emphasizes the fact that editorial work is compounded to a large extent of technical experience, plus a dream, or more correctly an ideal, to help or give within the limits of your resources, and finally tricks of the trade that you must quickly master in order to meet daily needs.

Every profession or trade has its own terminology. Anyone engaged in a specific field gradually acquires a number of expressions which are used as a means of communication among the personnel. The uninitiated look upon these as the "jargon" or "clichés" of the trade. As necessary these symbols,

which come so easily to the lips or the pens of the initiated, can always be examined to see what they stand for in relation to the field in which they are used. In editorial work these expressions and symbols are particularly significant in our contacts with the printers and they must be used accurately.

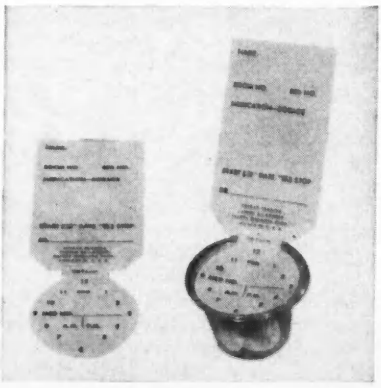
The "galley" which the printers return is used to prepare the "pin dummy" — the initial model. This step in the preparation of material for publication gives you an inward thrill of excitement. It again arouses the feeling that you are doing creative work; it stimulates a certain amount of initiative in the use of decorative art in the arrangement of editorial material. After two or three pricked fingers, you quickly learn the mechanics of this operation! The "paste dummy" is a copy of the pin model and is a replica of what the finished product will be.

Thanks to the decision made by the majority of nurses in the province of Quebec at an annual convention, the publication of our national nursing journal in the French language has been realized. This is the tangible result of an idea conceived more than 50 years ago in the minds and hearts of women whose vision extended well beyond their own time. They believed in the universality of nursing — free to go beyond the frontiers of the past, unhindered by regional boundaries as all human effort seeks to push forward free from the backwardness and slowness of isolated progress. Nursing — a profession as old as mankind and yet eternally young and dynamic — must meet the new and expanding developments of the age.

The confidence of the readers in the value of the journal assures future growth. The magic of the written word in the mother tongue of the reader becomes, for the individual nurse, a powerful means of growth and development, of increased self-confidence. Later, she in her turn, as others before her have done, will contribute the knowledge that she has acquired while practising and perfecting the art and science of her profession. Nothing is expected of her that she can not do. She, like others, will share in the fruits of the harvest.

GABRIELLE D. COTÉ
Assistant Editor

A lightweight, disposable plastic container with a detachable medicine-card safety-cap is now available. The new containers offer greater safety, easier checking, and freedom from error. Time and expense of collecting, washing, and sterilizing medicine glasses is eliminated. Self-stacking *Pill-Packs* hold up to 12 pills or one-half ounce of liquid. The medicine card has spaces for patient's name, room and bed number, medication, directions, and doctor's name. Safety-seal lid bears patient's name and directions for administration.



The medicine card is detached at the bedside and can be filed or fastened to the patient's chart. A lightweight plastic Carrying Tray is available, large enough to hold 25 containers. Write for a free circular to Caddie Creations, 712-714 S. Pulaski Rd., Chicago 24, Illinois.

* * *

High blood pressure or hypertension could be prevented in many cases if those over 40 years of age would follow a common-sense plan for living, with adequate rest, moderation in eating and drinking, and such exercise and diet as approved by the doctor.

— Dept. of National Health and Welfare

Cardiac Catheterization

G. R. CUMMING, M.D.

MOST MAJOR medical centers have a laboratory where special investigative procedures on the heart and circulation are carried out. Very few people have the opportunity to familiarize themselves with the workings of this cardiac laboratory, and the object of this report is to outline the information that is obtained at heart catheterization and how it is used in the diagnosis of heart disease.

It must be emphasized that in most patients an accurate diagnosis of heart disease is obtained by clinical examination supplemented by an electrocardiogram and chest x-rays, and these special studies are not required. Today, with proper safeguards, heart catheterization is a safe procedure. As the keystone to proper treatment is an accurate diagnosis, this procedure is being used more and more. Heart catheterization is used in congenital heart disease: (1) whenever diagnosis cannot be made by usual means, (2) to confirm a diagnosis before surgery, and (3) to assess results of surgical repair. In rheumatic heart disease catheterization is required to obtain quantitative data on the severity of valve damage and to determine whether a valve is predominantly too narrow (stenotic) or allows leakage of blood (insufficient), as the surgical indications and approaches differ. A third and important use of heart catheterization is an investigative tool for research. Age is no barrier. Safe, successful catheterizations have been done on the newborn and in patients over 60.

Personnel

A most important consideration in the development of a laboratory is teamwork. A laboratory may employ as many as ten to twenty people, and a minimum staff should consist of: (1) a physician in charge who also manipulates the catheter, (2) a technician or resident to run the recording devices and emergency apparatus and monitor the electrocardiogram, (3) a nurse to care for the patient, drugs, supplies, and (4) a technician to perform blood and gas analyses. Advice and cooperation from a radiologist and x-ray technicians are required, and an anesthetist, other physicians and technicians may be needed depending on the quantity and type of information desired. In some institutions general anesthesia is used in infants and young children, but many places are able to do the procedure with moderate barbiturate sedation and tranquilizers.

Catheters

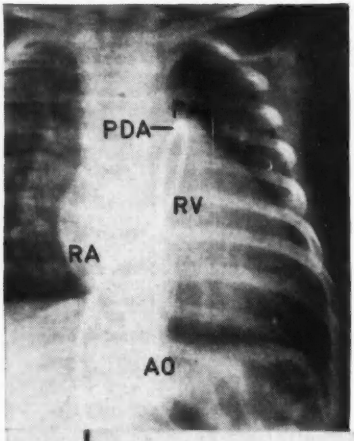
These are made of a woven nylon material, vary in diameter from 4 to 8 French, in length from 50 to 125 cm., and are radiopaque. They are easily inserted into a vein by cut-down, or threaded through a large needle that has been inserted into the vein percutaneously. In adults an arm vein is usually chosen; in infants the saphenous or femoral vein in the right groin; and in children — either area, depending on the choice of the operator. In the arm the catheter slides along the vein without any discomfort to the patient, reaches the superior vena cava, turns down and enters the right atrium. The course of the catheter may be followed by fluoroscopy. The tip of the catheter is bent, and by external twisting this tip may be directed within the heart and the catheter advanced in the desired direction. From the right atrium the catheter is pushed through the tricuspid valve, into the right ventricle, out the pulmonary valve and into the pulmonary artery and lungs.

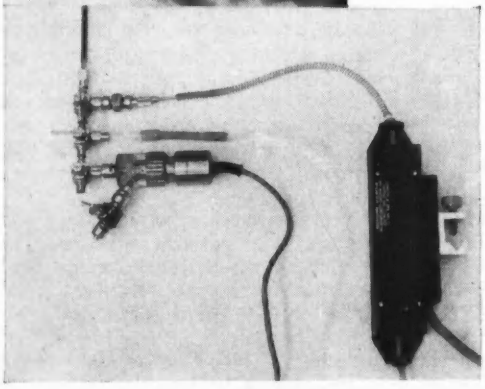
The electrocardiogram is monitored in case an arrhythmia develops. The position of the catheter is determined from the fluoroscope picture and confirmed by oxygen and pressure records. The lumen of the catheter is kept free of blood by a slow drip of saline containing heparin. The presence of defects within the heart may be determined by putting the catheter

Dr. Cumming is associated with Children's Hospital, Winnipeg.

through a hole, but in most instances one is not so fortunate and less direct information is obtained to arrive at the diagnosis. Through the catheter, pressure in each heart chamber is measured and blood is withdrawn for an analysis of its oxygen content.

The catheter and the attachments for measuring pressure and blood oxygen are shown in *figure* 1. Connected to the catheter from above down by stop cocks are: an oximeter, the heparin drip, and a pressure transducer. This also shows the chest x-ray of a six weeks old infant with the catheter having been advanced up the inferior vena cava, into the right atrium, right ventricle and pulmonary artery. From there the catheter slipped through a patent ductus arteriosus, and the end of the catheter is well down the descending aorta.





PA—pulmonary artery
PDA—patent ductus arteriosus
RV—right ventricle
RA—right auricle
AO—aorta

Figure 1
Catheter assembly & catheter traversing a patent ductus

Pressures

These may be measured by a saline manometer such as is used for spinal fluid pressure in a lumbar puncture, but because the contour of the pulse wave is of some value pressures are usually measured by a pressure transducer connected to the end of the catheter. A transducer is simply a gadget for changing the physical energy of pressure into an electric current which varies according to the pressure, and can be measured and recorded by the galvanometers of the recording apparatus.

The normal values for the pressures and oxygen saturations in each heart chamber are shown in *figure* 2. In many forms of congenital heart disease the pulmonary artery pressure, instead of being ⅙th of arm blood pressure, is elevated to 60 or even 120 mm. of mercury systolic. This is spoken of as pulmonary hypertension.

The term stenosis is applied to a valve that is narrow. An example is congenital pulmonary stenosis. In this case the pressure in the chamber upstream from the valve — the right ventricle — is high because the narrow valve impedes the flow of blood from the chamber, and the pressure in the pulmonary artery beyond the obstruction is low. *Figure* 3 shows an actual case, with the pressure curve obtained from above and below the valve narrowing. By slowly drawing the catheter from P.A. to R.V. and following the pressures, the exact site of the narrowing may be determined

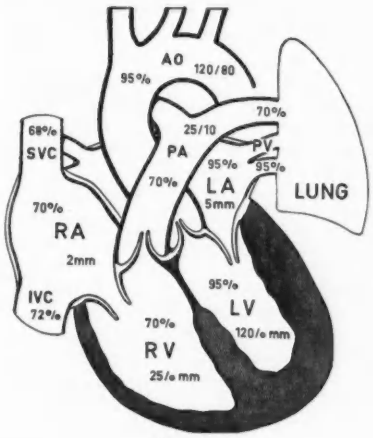


Figure 2
Normal pressures and oxygens

by knowing where the sudden change in pressure occurs.

Blood Oxygens

Blood is withdrawn from the catheter with the latter in various positions in the heart. This blood is analyzed for its oxygen content, either by measuring the gas directly in a Van Slyke apparatus, or by using an oximeter which measures the per cent oxygen saturation by electrical means. The latter has the tremendous advantage of giving an answer immediately, as the blood is being drawn through the oximeter, and not a few hours later when the laboratory results are back. Also the blood may be returned through the catheter after the reading is obtained, and blood loss is avoided. This is important in infants where ten or so samples of 5 cc. would represent a significant blood loss.

In the normal heart the oxygen content of the venous blood is constant at about 70% saturation in the vena cavae, right ventricle and pulmonary artery. After going through the lungs the blood is about 95% saturated, and remains so in the pulmonary veins, left atrium, left ventricle and in the arteries.

When there is a hole between the two atria, (an atrial septal defect), the pressure in the left atrium being a little higher than in the right atrium, the blood flows from left to right. This produces a rise in the oxygen content of the blood in the right atrium, which can be detected by sampling through the catheter. Similarly, in holes between the ventricles (ventricular septal defects), blood high in oxygen flows from the higher pressure left ventricle to the right ventricle, causing a rise in the oxygen saturation in this chamber.

Lastly, in communications between the aorta and the pulmonary artery, (commonly, a patent ductus arteriosus), highly oxygenated blood flows from the aorta to the pulmonary artery, producing a rise of oxygen content in that vessel. A rise in oxygen in the chamber in the right side of the heart is indirect evidence in favor of a defect at the area where the rise is found, and with large defects the "shunt" of oxygenated blood is such that the diagnosis is clear. With small shunts the oxygen measurements may not change enough to be diagnostic. With ventricular defects the pressures may be higher in the right heart chambers than the left because of associated valve narrowing or occlusive disease of the pulmonary arteries. In these instances the shunt is from right to left, the arterial blood shows an oxygen saturation under 95%, and a form of "blue baby" is produced.

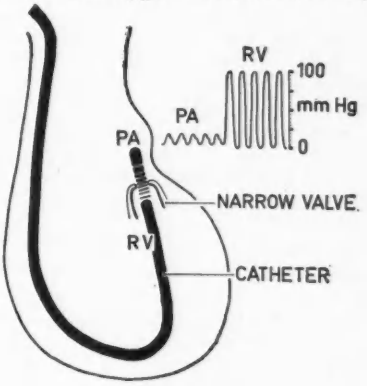


Figure 3
Pressures in pulmonary stenosis

Angiography

The standard chest x-ray depicts the shadow cast by the heart and fails to show what is present inside the shadow. The anatomy within the chambers of the heart may be shown by following the course of a contrast media in its course through the heart. This is the same principle used to out-

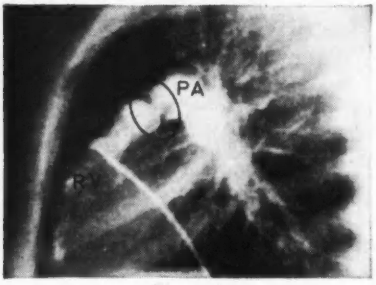


Figure 4
Selective angiocardiogram in pulmonary stenosis.

line the gallbladder, stomach or kidney, but because blood flow is so much faster than movement in other areas, special techniques are necessary. The opaque media may be the same as used for an intravenous pyelogram and may be injected into an arm vein, (a venous angiocardiogram), or the injection may be made into a heart chamber through a catheter, (a selective angiocardiogram). In either case the media is injected as rapidly as possible, either by hand, or preferably by a mechanical injector, so as to form a bolus that can be followed through the heart. X-rays are then taken to follow the bolus. Because of the rapidity of changes in the heart, the x-rays must be taken at minimum speeds of 3 to 10 pictures per second. This requires special expensive x-ray apparatus that changes the film automatically at these rapid rates. The injection through the catheter has definite advantages over the arm vein.

Many laboratories now combine the procedure of catheterization and angiocardiography. The angiocardiogram may be used to show up narrowing of valves as in pulmonary stenosis, or show up defects of the septa, and lastly to reveal the anatomy of the aorta and pulmonary vessels in the complex anomalies such as Tetralogy of Fallot, Truncus and Transpositions. Angiography is indispensable for diagnosis of the latter anomalies. *Figure* 4 is a selective angiocardiogram of a two-year-old. The opaque media was injected through the catheter which is in the right ventricle, and the lateral view shows the thickened valve cusps with a small central opening (circle).

Dye Curves

One or two cc. of a green or blue dye is injected at varying points in the heart through the catheter, and blood is sampled either from a peripheral artery or by means of another catheter in another heart chamber. If the dye shows at the sampling site before it normally should then an abnormal communication is present in the heart. This can be further localized by varying the site of injection or sampling. The appearance of the dye at the sampling site is now measured electronically, in place of earlier methods where fluorescene was injected and its time of appearance at the lips was determined, or it was injected and the time of its appearance in the lungs determined by smell or cough. The curve of the changing dye concentration in the blood is called a dye dilution curve.

Image Intensification

The picture on the fluoroscopic screen is not bright, and must be viewed in the dark, the viewer accommodated. This not only is tiresome — turning lights off and on, putting red goggles on and off, trying to manipulate instruments in the dark during a heart catheterization, but it prevents the watching of the patient as closely as one would like. The image of the fluoroscopic picture can now be intensified electronically and the intensified image can be viewed directly in a dimly lit room, or may be transferred by a television camera to a television set mounted on the wall, so the catheterization may now be done in the lighted room. The other application of this advance is the ability to obtain *ciné* angiocardiograms. Instead of viewing single pictures showing the progress of an opaque substance through the heart, the motion of the heart and the opaque media going through it is shown in slow motion on a movie camera. The technical qualities of these pictures is still not completely satisfactory.

Summary and Conclusions

The mechanics and uses of heart catheterization have been briefly reviewed. The work of many researchers has made this procedure safe and effective, and easy to apply to clinical cases. Heart catheterization has improved the accuracy of clinical diagnosis of heart defects.

Cardiac Catheterization

General Nursing Care

NANCY D. MACMILLAN

GOOD NURSING is an essential part of safe and diagnostically complete heart catheterization, and the nurse is an indispensable member of the catheterization team.

Preoperative Care

While heart catheterization may be done as an outpatient procedure it is usually advisable to have the patient admitted about 36 hours before. This allows the child to get accustomed to the hospital, and preliminary studies such as heart fluoroscopy and electrocardiograms may be completed. Blood hemoglobin level is checked and with infants, if the hemoglobin is low, cross-matched blood is obtained.

Older children and adults are fasted prior to the procedure. Infants are allowed milk about two hours before the procedure. It is important to avoid dehydration of cyanotic children with high hemoglobins. Usual preoperative care consisting of voiding, sponging, removal of gum, rings and watches is instituted. A sedative is usually given one hour before going to the laboratory. A prophylactic dose of penicillin is administered.

During Heart Catheterization

It is advantageous for the nurse to meet and gain the confidence of the child prior to the catheterization. The patient may be reassured that there is no discomfort in the test. During the setting up of the equipment and insertion of the catheter all steps are explained. The attention of children three to ten may be diverted with story books. A lollipop may prove a big hit if other measures fail. Infants are quieted if necessary by a soother or sips of glucose and are usually tied to a circumcision board.

During the manipulation of the catheter and the measurements of blood oxygens and intracardiac pressures the patient is watched closely for:

1. changes in color — cyanosis, pallor.
2. quality and rate of pulse.
3. rate and depth of respirations
4. adverse reactions such as chills, fever, sweating.

Signs of trouble include shallow, slow breathing, excessive slowing of the heart, cardiac arrhythmias, and increase in cyanosis. Heart rhythm is followed with an electrocardiogram, and it is not difficult for a nurse to master the essentials to monitor this. Emesis may occur occasionally and the nurse should be alert to prevent aspiration. The patient with heart failure may be studied well propped up with pillows or with the foot of the x-ray table tilted down.

Postcatheterization Care

In infants especially, pulse and respirations should be watched carefully until the effects of the sedation have worn off. The site of the catheter insertion and arterial puncture should be checked for bleeding. Many patients have had angiocardiography combined with catheterization and the media injected may cause nausea and vomiting, so that excessive fluids and food should be avoided in the immediate postoperative period.

Radiation Hazard

There is no hazard if proper precautions are taken. Lead aprons are worn at all times. If the patient must be held for angiography the nurse should wear gloves. Nurses should alternate in this job if angiography is used frequently. The radiology department aids in this by proper shielding of patient and limitation of fluoroscopy time. The recent development of image intensifiers will further reduce any radiation hazard.

Preparation of Equipment

In many laboratories nurses have

Miss Macmillan is an assistant head nurse at Children's Hospital, Winnipeg, Manitoba.

taken over the running of the recording equipment, and also prepare the syringes, drugs, catheters and instruments. A few points should be stressed. Syringes must have well matched barrels. In drawing blood samples for oxygen analysis air bubbles must be scrupulously avoided. The catheters are usually cold sterilized with detergicide. Complete rinsing away of all chemical with several washings in sterile water is essential to avoid pyrogenic reactions.

Drugs and Emergency Equipment

It is the nurse's duty to see that the drugs are always available. These include ampoules of digoxin, quinidine, procaine amide, atropine, caffeine and sodium benzoate, coramine, an antihistamine, dramamine, demerol and a barbiturate. An emergency set with laryngoscope and endotracheal tubes must be kept complete. Oxygen with a bag and mask should be available. It is hoped and expected that these will never be needed, but in the event of an emergency they are needed rapidly.

The nurse's position in the catheterization team varies greatly with the size of the team and the number of catheterizations done. It is much more difficult in the smaller laboratory where all the techniques, procedures, nursing care and preparations may have to be mastered by one nurse, compared with the larger laboratory where each member has a limited and prescribed duty.

Cardiac Catheterization

Specific Nursing Care

Ann Benesch

The Patient as a Person

Mrs. Doran was a quiet, shy housewife with slightly wavy brown hair and pretty brown eyes. She was a small, extremely thin woman about five feet three inches in height and weighing 95 pounds. Her attractive face had a frail, sunken appearance although her cheeks still had a rosy flush. A happy, motherly woman, her ready smile revealed teeth discolored from peridontal disease. It was easy to see that she "liked to look as nice as possible." When she was out of bed she wore a crisp white bathrobe patterned with pink roses and a dainty lace-trimmed collar. Her threadbare, much-laundered nightgowns were always clean — even her bedroom slippers had a much-scrubbed look.

Mrs. Doran was devoted to her husband and five children whose ages ranged from 16 months to 12 years. She commented that her house was always filled with children with their hurrying feet, laughter and questions and she loved the activity. Each child was encouraged to bring his friends home and sometimes her little home resembled the storybook picture of the old woman in the shoe. During her hospitalization, her eight-year-old son and his 32 classmates made get-well cards to send to her. Their arrival at noon on the day of her cardiac catheterization was a happy accident of fortune. She was so busy enjoying the cards that she forgot the morning's discomfort and tediousness.

Mr. Doran, a World War II veteran, worked as a meat handler. Since his monthly income was not large, his wife occasionally worked as a clerk. They had lived in their small, frame house for three years.

Mrs. Doran had had only 11 years of schooling due to her early marriage at the age of seventeen. During her hospitalization she did considerable reading. She took a definite interest in her condition and treatment, complaining very little and cooperating in treatments readily.

Ann Benesch was a third year student at the Georgetown University School of Nursing when this nursing care study was written.

Past Medical History

Before she was five years old, both of Mrs. Doran's parents died from causes unknown to her. She and her two little sisters were reared by different aunts. She contracted the usual childhood diseases but in addition was troubled by frequent epistaxis, aching joints and sore throats. When she was 12 years old she developed scarlet fever and a heart murmur was noted. At that time Mrs. Doran was told that she had rheumatic fever and she was placed on restricted activity. Since then she has had dyspnea on exertion.

During each pregnancy Mrs. Doran has had paroxysmal nocturnal dyspnea, at least two-pillow orthopnea, ankle edema and palpitation. These symptoms receded after each delivery except the last one. Three weeks after the birth of her first baby, she was hospitalized for one month with hepatitis. To her distress, her next three pregnancies terminated in spontaneous abortions. Happily the succeeding four pregnancies were carried to term. Since the birth of her last baby, the dyspnea, orthopnea, palpitation, and ankle edema have continued and even increased.

Five weeks prior to admission to the Medical Center she sought help from her private physician after a bout of fever and abdominal pain of six days' duration. Immediate hospitalization followed. After being digitalized and treated with antibiotics and diuretics for a week, she was discharged with a diagnosis of heart failure. One week later, she returned to her physician with complaints of increased dyspnea on exertion, palpitation, edema, a productive cough and left anterior chest pain which did not radiate and was not related to respiration. The doctor referred Mrs. Doran to the medical center's cardiac clinic.

Following a complete physical examination in the clinic, Mrs. Doran was admitted to the hospital for cardiac evaluation and treatment. The final report noted engorgement of the neck veins, cardiomegaly, cardiac insufficiency, heart murmur of unknown origin with probable intra-atrial septal defect and possible mitral stenosis and insufficiency, together with hepatomegaly, peridontal disease, a second degree cystocele and bronchitis.

Intra-Atrial Septal Defect

In the embryo the primitive heart has a common atrium, and a septum is added later in development. At the front and back of the atrioventricular canal, endocardial cushions grow together to form a partition. A septum primum grows down to meet them but there is an incomplete closure since the ostium primum, formed by the curved margin of the septum remains. This ostium closes by the end of the sixth week, but meanwhile the ostium secundum, a new opening higher up, develops. Then a septum secundum develops. It partly joins and partly overlaps the first so that the foramen ovale exists in fetal circulation.

An atrial septal defect is a serious condition. Sometimes the septum secundum does not sufficiently develop and leaves the ostium secundum open. At other times there is an ostium primum when the first septum does not meet the endocardial cushions. The latter defect may involve the mitral and tricuspid valves and present greater difficulties.

The existence of an ostium primum or ostium secundum allows blood to go from the left atrium to the right atrium since the normal pressure is greater in the left atrium. This abnormal situation can be shown in a cardiac catheterization. The tip of the catheter may go through the defect and be visible on fluoroscopy. Alternatively the contamination of mixed venous blood by oxygenated blood at the right atrium level may be demonstrated through blood specimens. In the diagnosis of intra-atrial septal defect, cardiac catheterization associated with x-rays showing pulmonary blood flow helps to rule out other defects which cause enlargement of the pulmonary artery. Intra-atrial septal defect is frequently accompanied by mitral stenosis, and it is found most often in females.

Diagnostic Studies

Prior to cardiac catheterization, Mrs. Doran had certain other routine diagnostic studies. An electrocardiogram, which is a visual representation of the electrical activity of the heart, demonstrated and identified certain cardiac rhythm disturbances. A complete blood count revealed a normal blood picture while her serology and routine urinalysis reports were nega-

tive. A Fishberg concentration test, a phenolsulfonphthalein test and a total nonprotein nitrogen test — all related to renal function were within normal limits. A bromosulfalein clearance test of liver function and a glucose tolerance curve for glycosuria showed normal values.

The physician explained the purpose of the cardiac catheterization in nontechnical language to the patient prior to carrying out the procedure. In this way Mrs. Doran knew exactly what was to be done when the operative permit was signed.

The Procedure

In the cardiac catheterization laboratory, strict surgical aseptic technique was followed. Mrs. Doran was draped and a local anesthetic administered. An incision was made into a branch of the left median basilic vein and a No. 9 cardiac catheter was inserted. This catheter is radiopaque, 100 cm. in length, with a curved tip. The drip system was adjusted to maintain a constant, slow flow of normal saline containing one mg. of heparin per 100 cc., through the catheter. A Courmand arterial needle was placed in the right femoral artery. Electrocardiograph and electrocardiotachometer readings were recorded simultaneously.

Under fluoroscopy the catheter was advanced into the heart. Pressure readings and blood samples were obtained several times and later analyzed for oxygen content, oxygen capacity and hemoglobin saturation. In this instance the catheter passed through the intra-atrial septal defect. The patient's blood samples showed definite oxygenation at the level of the right atrium and an oxygen step-up of 2.75 volumes per cent. Oxygen saturation of the arterial blood was normal. Determination of cardiac output showed a pulmonary flow 2.5 times the systemic flow. During the procedure Mrs. Doran chatted with her nurse.

The procedure demonstrated an intra-atrial defect with a large left-to-right shunt and slight pulmonary hypertension. The only permanent solution to Mrs. Doran's problem would be intracardiac surgery.

Nursing Care

Mrs. Doran was helped to view her condition as a problem that could be solved satisfactorily. It seemed to relieve her mind that we recognized her symptoms as constituting a *physical* problem for her — not a mental one.

Her doctor described her heart problem as a *mechanical* problem. This was the "break-through" to patient comfort and peace of mind. A mechanical problem is something that you can see and Mrs. Doran was of the opinion that "What you can see and get at, can be fixed — like an automobile engine. Get a good mechanic and he can fix it. Maybe it's a lot of trouble or maybe it isn't so much trouble — but a mechanical problem can be fixed!"

Mrs. Doran felt so certain that any mechanical problem could be fixed that part of her nursing care at that point meant knowing when enough had been said. An optimistic outlook is very important. One of her nurses who had a little more time at her disposal than the doctor, drew a diagram and explained the problem in more detail. This helped the patient to accept it, and reinforced her idea that, as the doctor had said, "It's a mechanical problem and it requires essentially a mechanical solution."

In her eyes: "A person is worth saving — however much of the mechanic's time it takes and whatever the cost. A broken or worn-out engine isn't always worth repairing; a person is." This gave the nurse an opportunity to encourage Mrs. Doran to talk. The sick person likes to talk a bit. She wants you to be interested in her problem. Illness makes the person more self-centred which a nurse needs to realize. Interested listening is a part of nursing care.

Sometimes sick people need to talk to keep from thinking too much. Mrs. Doran shared her interest in her children with the nurse as a diversion. This helped the patient to maintain her sense of individuality and the feeling that she was taking an active part in life.

When a diagnostic test, medication or treatment was scheduled, the nurse discussed it with Mrs. Doran. Renal and liver function tests showed whether these organs could get rid of waste products in the blood stream. Since they were normal, her "mechanical"

problem was less complicated — that was encouraging! An electrocardiogram was a "blue print" of the electrical activity of the heart. The cardiac catheterization could and did show a septal defect between the auricles and indicated whether the blood flow, as judged by its oxygenation at certain points, was normal.

Digitoxin 0.1 mg. administered daily slowed the rate of the heart beat and strengthened the force of contraction making the heart a more efficient pump. Nembutal 0.1 gm. enabled her to sleep and her heart was helped by proper rest. Procaine penicillin, 600,000 units intramuscularly twice a day, prevented infection which would force the heart to work harder and faster.

Planning For the Future

After the cardiac catheterization the doctor discussed the diagnosis and prognosis with Mrs. Doran and her husband. The only permanent solution was a surgical closure of the interauricular septal defect — a mechanical correction of a mechanical defect. This both the patient and her husband could accept and understand.

A discharge from the hospital with follow-up care through the cardiac clinic and re-evaluation in six weeks was planned. This would allow Mrs. Doran to spend some time with her children and give her an opportunity to build up her general health. Since she had to follow a low sodium diet (800 mg. daily), detailed diet teaching and planning were done with her. In many forms of heart disease the kidneys cannot excrete as much sodium as normally. An average daily diet containing 10 to 15 grams of salt becomes too much for the kidneys to handle. Salt is retained which results in water retention and tissue edema.

Mrs. Doran was given two medications to take at home — a daily tablet of digitoxin and four tablets of oral penicillin, 200,000 U., to prevent infection. A specific appointment was made with the clinic for continued follow-up care. Mr. Doran was given an appointment with a social service worker so that the family could plan for the future regarding finances, care of children when Mrs. Doran was hospitalized, and similar problems.

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The Canadian Junior Red Cross will be host to the first world-wide International Study Centre held under the auspices of Junior Red Cross, August 11-22. The delegates will meet at the University of Toronto and will include representatives from many countries. More than 1,304,000 Canadians belong to Junior Red Cross and there is a world membership of over 55 million. This is the world's largest youth organization.

The Study Centre is being held to mark the 50th anniversary of the granting of a charter to the Canadian Red Cross Society and to commemorate the 100th anniversary since Henri Dunant founded the Society.

Last year almost 1000 Canadians lost their lives in water accidents. Surely it is just as important to take care of ourselves at play as at work. The Canadian Red Cross Society has been appealing to everyone to learn and follow the rules of water safety this summer. This attempt to reduce the number of drownings should have our wholehearted support.

* * *

A round man cannot be expected to fit a square hole right away. He must have time to modify his shape. — MARK TWAIN

* * *

The pride of ancestry increases in the ratio of distance. — GEORGE WILLIAM CURTIS

Home Visiting and Maternal Health

RITA DOYON, B.SC.

AN IMPORTANT FACTOR in the maternal health program for any pregnant woman is the home visit made by the nurse from the supervising health agency. The care required by the expectant mother has a number of aspects that will be elaborated upon later in this article. New ideas, techniques and general information will be presented, designed to make the nurse's work in this field not only more interesting but also more productive.

A home visit calls for the use of all those techniques applicable to any successful personal contact. Such a visit provides fertile ground for teaching and effective action and could well be one of the most important duties performed by the nurse in the interests of public health. The friendly meeting during which an understanding and sympathetic relationship is established can be a very profitable aspect of the health program.

Family contacts are necessary for a number of reasons. One of the nurse's main objectives is to evaluate the health of the family in general, as a guide to her in determining the medical supervision or care required. By careful observation and by being a good listener, she is able to estimate the family's needs. On this she bases her program of teaching and care.

The art of being able to share one's ideas effectively with others is acquired gradually. It is a skill which the nurse must perfect by constant practice since the ability to present her information clearly and accurately will be to the benefit of those whom she is teaching. Knowing *when* to communicate is equally as important as knowing *how* to communicate. Teaching methods will vary according to the circumstances, the environment and the individuals involved. Under the guise of friendly advice, teaching should be directed along two specific lines — what the mother *wants to know* and what she *should know*. Keeping this in mind the nurse must plan her teaching so that it is adapted to the specific situation, understandable to the family and easily implemented. Generally speaking, modern means of communication have resulted in a better-informed public but it also means that the nurse must have a proportionately larger fund of knowledge so that she can correct false impressions or ideas.

We have said that a home visit to the expectant mother provides an especially favorable situation for health teaching. Instruction could be based on the following outline:

1. The pregnant woman *needs* to know the factors which will predispose to emotional security and eliminate fear or anxiety during this particular phase of her life.
2. The normal development of the child *in utero* requires a balanced diet.
3. The mother-to-be must understand what proper medical supervision consists of and its importance to her.
4. The mother must recognize the value of specific periods of rest, relaxation and exercise as related to pregnancy and learn how to fit these into her daily routine.
5. The value of breast feeding of the newborn can be emphasized.
6. Advice can be given in relation to the baby's layette or other preparations that may be necessary.

Carefully phrased questions will elicit answers that can guide the nurse in her approach to the mother. For example, "How are you feeling?" This is always a good introductory question. "What are your doctor's orders?" This gives the nurse a chance to find out if the mother is under a doctor's care. "What was your blood pressure the last time you saw your doctor? Was your urine test normal? What is your weight? Are you gaining? When do you go back again to see your doctor?" During subsequent visits the nurse will be mainly concerned with the mother's general appearance — her color, her posture, her ability to relax.

In planning maternal health visits

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priority is given to those women with particular problems or in special situations:

1. Primiparas — especially those under 20 years of age or over 40.
2. The more poorly educated women.
3. Mothers with large families (six children or more).
4. Women who may tend to be careless about obtaining medical supervision.
5. Women who have chronic heart or kidney conditions, diabetes or other illness. Each one of the above calls for special care.

Choosing the right moment for the home visit is an important detail. Preferably an appointment should be made in advance. Meal hours or the times during which meals are being prepared should be avoided. If the mother is ready to go out or is absorbed in tasks that she can not leave easily, it is much better to arrange another meeting since advice given under such circumstances would be useless.

The aims of prenatal teaching are varied:

1. To plan for the division of family responsibilities during pregnancy.
2. To explain to the parents the mechanism of pregnancy and the growth of the child *in utero*.
3. To point out the need for a sensible dietary regime for the family with emphasis on the foods required by the mother and baby.
4. To help both parents understand the physical, mental and emotional needs of the pregnant woman. To assist the parents in awaiting the birth of their child confidently, ready to meet the physical and emotional needs of the newborn.

The home visit brings out the various factors that allow the nurse to know the family — the family background, interests, customs and special needs. She looks upon the family as a team and observes the general atmosphere, the relationships among the various members, and any tension or friction which, in spite of efforts to hide it, may still be perceptible. Sometimes the nurse discovers remediable physical disorders which might otherwise have gone undetected.

The following rules may help the nurse to make her visits more interesting and profitable for her patients:

1. Provide the mother with the information that she *wants to know* and which she is *ready to receive*.
2. Teach at the *level of the mother's understanding*. Integrate new ideas with those that she already has. Start from the known and proceed to the unknown. Such teaching calls for considerable skill and tact on the nurse's part.
3. Although *repetition* is an excellent way to impress ideas, *don't overdo it*. The same idea can be expressed in different ways or in different words.
4. Avoid *too much detail* and *too much advice*. It is better to have the mother accept and thoroughly understand one idea than to pour out a flood of advice that may confuse her or make her lose interest completely.

The "follow-up" visit is often the best way to find out if individuals have understood what they have been taught and are putting it into practice. Experience is a great help in ensuring effective teaching but every nurse should periodically ask herself, "Is my teaching clear, not too detailed? Have I really answered the mother's questions and are my replies understandable? Have I been too demanding thus creating an emotional or intellectual block that hinders understanding of my advice? In the mother's place, how would I feel towards the nurse?" Some nurses forget that *they* have to keep up-to-date.

The ultimate aim of prenatal supervision is the birth of a healthy child to a healthy mother in a healthy home environment. Professionally we work with people of all ages and conditions — the newborn, the infant, the preschool child, the school child, the adolescent — the future adults and parents. In our visits to the homes we encounter the aged and by a smile or a word of advice give new courage. But our concern lies too with the future generations and realization that preparation for motherhood begins years in advance is essential for effective health service. Every opportunity must be used to teach prevention of illness and improvement of health. Every child born in this country is a potential parent. Home visiting is one of the most effective means of bringing health education to the public.

RESEARCH

An Analysis of the Experiences of Eight Cardiac Patients during a Period of Hospitalization in a General Hospital

Interim Report

MARGARET ALLEMANG, B.SC.N., B.A., M.N.

This is a report of a study of eight cardiac patients hospitalized at the Toronto Western Hospital in January, 1958. The purpose of this study was to analyse the experiences cardiac patients were having in hospital as a first step in an attempt to gain factual information that would throw light on the fundamental questions, "What are the needs of patients for nursing care?" and "How may nursing resources be utilized for the greatest benefit of the patient?"

Purpose of the Study

We are all aware that nursing exists solely for the welfare of the people it serves, yet we have little factual information regarding the factors in nursing that most effectively promote recovery. We are also aware that the hospital situation is continually growing more complex, yet we have little, if any reported research regarding the impact of these changes on the patient. We are fully aware that heart disease is one of the leading health problems in our society and that the nurse has a contribution to make in promoting the recovery and welfare of the cardiac patient, yet we have little reported research regarding the problems and needs of cardiac patients for nursing care.

Obviously all these problem areas require intensive and extensive investigation, and no single study will provide the answers to the many questions that might be raised in any one of these areas. Although this study was conceived as a result of an awareness of the need for factual information regarding nursing problems, it may be considered as only exploratory in anticipation of further research. This study was designed to answer five specific questions:

1. What activities comprise the cardiac patient's day in hospital?
2. Who are the people who participate in these activities? What do they do and for what period of time are they with the patient?
3. What symptoms, reactions, changes in condition does the patient display during the course of his hospitalization?
4. What are some of the identifiable needs of cardiac patients as evidenced by the patients studied?
5. How may the nursing of cardiac patients be improved?

Scope and Limitations of the Study

Four female and four male patients hospitalized in a 700-bed general hospital comprised the group observed for the purposes of this study. These pa-

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tients were selected from two medical, 39-bed, standard wards, one of which was for female patients, the other for male patients. Both wards were rectangular in shape and non-partitioned.

The selection of patients was based on certain requirements which included: a cardiac diagnosis, medical permission, and the stated willingness of the patient to participate. If this decision could not be made by the patient because of his mental or physical condition, the permission of the nearest relative was required. The selection of patients was further conditioned by the fact that the period for collecting data was determined in advance and limited to seven days on each ward.

Hence, as the scope of this study was limited to selected patients, on selected wards in one particular hospital, the findings are conclusive only for the patients studied. No generalizations may be made although the findings may possibly be indicative of general trends.

As the primary intent of this study was to describe the activities and course of events experienced by patients during a period of hospitalization, the study should not be considered a critical evaluation of the nursing care given in a particular hospital. The answer to the question, "How may the nursing of cardiac patients be improved?" can only be in terms of hypotheses to be tested at a later date.

Nor does this study purport to identify the needs of cardiac patients for nursing care. If the question, "What are some of the identifiable needs of cardiac patients as evidenced by the patients studied?" seems to imply that all cardiac patients have the same needs, irrespective of the nature of their disease and the degree of cardiac involvement, this was not intended. As the data for this study arise solely from observation, obviously only some of the patient's needs will be discernible. As emphasized previously, these findings will not be applicable to patients other than the ones studied.

Sources of Data, Method of Procedure

Direct, continuous observation was the method selected for gathering information to the questions posed. The plan was to have an observer stay at the bedside around the clock and observe what she saw and heard. Her observations were to be as factual as possible and were to include the activities of the patient, the symptoms and changes in condition he displayed, the supportive and therapeutic care given the patient by all members of the health team, and the visits to the patient by relatives and friends. Conversation at the bedside was also to be recorded if possible. There was to be no interpretation of what was observed; rather, the observer was to mirror what was happening to the patient and taking place at his bedside.

For recording these observations, special sheets were designed on which the observer could record her minute-by-minute observations. To validate this method of procedure and the devices for gathering data, a three-day pilot study was undertaken. This preliminary study provided much valuable information that facilitated further planning and procedure.

For example, all the patients on the ward were more or less affected by the presence of observers, although only two patients were observed. The ward patients called the observers, "The Gestapo," and wondered what Mrs. X. had done that she had to be guarded by police women. As the observation proceeded this particular patient became suspicious of the observers. She would cast furtive glances at the observer and say she didn't like being watched.

As a result of this pilot project, it was decided, that before starting the next period of observation, the purposes of the study would have to be clearly explained to all the patients on the wards, and moreover, for valid results an attempt must be made by the observers to establish a friendly non-threatening relationship with the patients being studied, possibly by some social conversation and by performing occasionally such small services for the patient as offering fluids or fluffing his pillows.

The plan for classifying the observations according to a category system was also refined as a result of the pilot study. Determining clear-cut categories and formulating precise des-

criptions of activity for each category proved to be a difficult task. Categories were required that would embrace all the activities in which the patient and the personnel at the bedside participated and which would be so sufficiently clear-cut that information gathered by the observers would readily fall into a particular category.

For the classification of data relating to patient-activity twelve categories were defined, described, and coded. Nine of these categories pertained to activities related to the hygiene of everyday living and included:

1. sleep; 2. quiet; 3. slight activity; 4. moderate activity; 5. extreme activity;* 6. activities related to bathing, grooming and comfort; 7. activities related to elimination; 8. mealtime activities; and 9. diversion.

Three categories were related to specific activities necessitated because the patient was ill:

1. activities related to diagnostic measures or methods; 2. activities related to treatment; and 3. consultation, receiving health teaching.

Categories for the classification of data pertaining to the activities of the people who participated directly in the care and experiences of the patient included:

1. bathing, grooming and providing simple comfort measures; 2. mealtime activities; 3. activities associated with elimination; 4. care of unit and equipment; 5. socializing; 6. diagnostic measures and other activities to gain information; 7. activities related to treatment; 8. consultation, health teaching; 9. miscellaneous.

This last category embraced such activities as bringing and taking various articles to and from the bedside and other activities of infrequent occurrence that could not be classified elsewhere.

Although this category system was relatively exhaustive, the objective of mutually exclusive categories was not satisfactorily achieved. The differentiation between such categories as socializing and consultation and between activities related to diagnostic measures and consultation in some instances is minimal. Furthermore, the pilot study showed that infrequently several activities took place simultaneously. It was finally decided that the solution to the problems of classifying data according to the outline set of categories would have to be left to the discrimination of the person coding and classifying the data; and that, if two activities were taking place at the same time, the analyst should classify both activities but only include in the time analysis the one activity which in her judgment had priority.

After this preliminary work, detailed plans were made for the gathering of data to be used in answering the questions posed by the study. This time all patients and staff were well informed regarding the plans and purposes of the study.

Four male patients, and four female patients, two of whom were in their forties, four in their seventies, and two in their eighties, were selected for study and observed minute-by-minute around the clock. Six patients were observed for seven days, one for six days, and one for five days. In all, observation of 53 patient-days were made and 76,320 minutes of observation were recorded.

Collection of Data

Observations were gathered by eight graduate nurses from Toronto Western Hospital and by eight staff members of the School of Nursing, University of Toronto. One person observed two patients during the day for a seven-hour period, alternating an hour of observation with a half-hour of relief. At night one person observed four patients for a total of seven or eight hours, alternating an hour of observation with an hour of relief. The observers sat either at the head or at the foot of the patient's bed and recorded on the spot what they saw and heard.

The observers did not participate in patient care except to perform simple services or to chat occasionally. To avoid getting involved in extensive care, which would prevent accurate observation, the observers wore white laboratory coats rather than the nurse's uniform.

It was interesting to note how quickly the ward became accustomed to

*Categories 3, 4, and 5, embraced varying degrees of random patient-activity in which no other person was involved.

the observers. Only one patient seemed to be somewhat bothered by the study in so far as he complained several mornings about being watched so closely at night. When asked if he wished to withdraw from the study he refused to do so. Three patients mentioned specifically how sorry they would be when the observers left. One patient said he would miss having someone to talk to, although in this case, the observers had mostly listened to him. Despite this, it was felt, that the observers did not, on the whole, influence the patient or the situation to any marked degree.

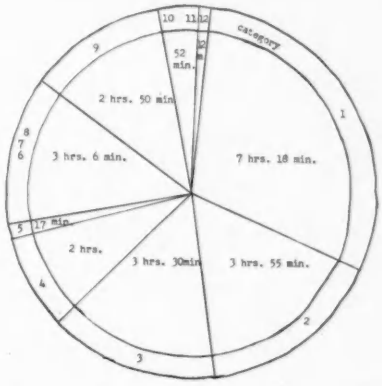

Figure 1. Mean time distribution of patient activities in a 24-hour period.

1. Sleep, 7 hrs. 18 min.
2. Quiet, 3 hrs. 55 min.
3. Activity† 3 hrs. 30 min.
4. Activity†† 2 hrs.
5. Activity††† 17 min.
6, 7, 8. Personal hygiene and activities associated with elimination and mealtime, 3 hrs. 6 min.
9. Socializing and other diversional activity, 2 hrs. 50 min.
10, 11. Activities related to diagnostic measures and treatment — 52 min.
12. Consultation, health teaching, 12 min.

Analysis of Data

The data have now been analysed in terms of how the patient spent his day; also, in relation to who participated in the care and, at the bedside of the patient, the amount of time spent with him; and what was done for him by the various members of the health team. In other words we have factual information to answer the first two questions posed in the purpose of the study.

In this report detailed information gained from this analysis cannot be given; only some of the findings may be highlighted. In presenting summaries it should be emphasized that no patient passed an average day. There was wide variation in all categories of activity from patient to patient and from day to day.

The answer to the question, "What activities comprise the cardiac patient's day?" is shown in *Figure 1.* On the average approximately 23 of the 24 hours (22 hours and 56 minutes) were spent in activities of a general nature related to meeting basic and personal needs, and slightly over one hour (64 minutes) was spent in activities associated with diagnostic measures and methods, treatment, consultation and health teaching.

Some interesting facts emerge from the breakdown of this material. For example, the wide variation from patient to patient in time spent in sleep, quiet, and in varying degrees of random activity is illustrated in *Figure 2,* and in Table 1. Although the average time spent in sleep, as noted in *Figure 1,* was 7 hours and 18 minutes, *Figure 2* shows that, in a 24-hour period, the average hours of sleep per patient varied from a maximum of 9 hours and 24 minutes for Male Patient A to 3 hours and 56 minutes for Female Patient D. Male Patient A, who was in his eighties and suffered from senility as well as heart disease, secured the most sleep recorded in any 24-hour period which was 12 hours and 32 minutes. Female Patient D, an acutely ill patient, who was extremely restless, agitated and dyspneic, secured the least amount of sleep recorded in any 24-hour period — eight minutes. As well as distressed by her physical symptoms this patient had great difficulty in communicating her wants.

A comparison of the maximum, minimum and average time per day spent in all categories of activity by each of the eight patients during their total period of observation may be seen in Table I.

Figures 3 to *6* summarize the findings of the study in answer to the

TABLE I

Maximum, Minimum, and Mean Time per day spent in Twelve Categories of Activity by each of Eight Patients during period of Observation

Category of Activity	Female Patient A			Female Patient B			Female Patient C			Female Patient D			Male Patient A			Male Patient B			Male Patient C			Male Patient D		
	Maximum	Minimum	Mean Time	Maximum	Minimum	Mean Time	Maximum	Minimum	Mean Time	Maximum	Minimum	Mean Time	Maximum	Minimum	Mean Time	Maximum	Minimum	Mean Time	Maximum	Minimum	Mean Time	Maximum	Minimum	Mean Time
Sleep	10:25	3:23	6:40	11:37	3:32	7:51	12:14	4:02	9:14	7:41	:08	3:56	12:32	7:06	9:24	10:21	5:51	8:10	7:29	5:24	6:43	8:44	4:18	5:48
Quiet	6:38	2:34	4:43	4:28	1:53	3:00	5:03	2:24	3:49	9:21	5:24	7:07	5:45	2:08	3:30	5:50	2:35	4:28	2:34	1:26	1:54	2:55	1:02	1:49
Activity †	7:57	1:46	4:43	4:16	1:06	2:51	4:27	1:24	2:31	8:32	3:23	5:45	6:18	1:47	2:44	6:09	3:14	4:11	3:33	:50	2:11	4:23	1:28	2:35
Activity ††	2:21	:23	1:09	3:38	1:35	2:46	4:32	:42	1:47	4:47	:20	2:16	2:55	1:06	2:13	:56	:14	:36	3:01	:51	1:51	6:07	1:32	3:32
Activity †††	:04	:00	:00	:17	:00	:00	1:16	:00	:19	1:03	:02	:29	1:38	:00	:30	:03	:00	:00	:51	:00	:27	1:02	:00	:19
Personal Hygiene	2:03	1:09	1:34	1:08	:45	:55	2:22	1:08	1:36	2:34	1:20	1:59	3:57	1:50	2:34	3:02	:58	1:75	1:28	:16	1:05	1:07	:24	:53
Mealtime Activities	1:46	:51	1:14	1:14	:48	1:03	1:58	:24	1:15	:31	:06	:19	1:31	:40	1:07	1:32	:53	1:09	1:41	1:16	1:27	1:37	:37	1:05
Activities Assoc. with Elimination	1:18	:00	:29	:52	:19	:32	2:07	:00	:46	:23	:00	:12	:46	:02	:18	:44	:03	:23	1:01	:17	:31	:41	:21	:27
Diversion	3:54	1:24	2:27	7:28	:48	3:34	2:55	:56	1:44	:59	:04	:31	1:07	:16	:37	2:06	1:25	1:56	8:52	5:01	6:53	8:06	4:22	6:36
Diagnostic Activities	:38	1:06	:20	2:03	:06	:46	:45	:15	:24	1:01	:09	:31	:12	:02	:05	1:44	:12	:46	1:35	:08	:42	2:15	:07	:44
Receiving Treatment	:37	:10	:20	1:00	:00	:14	:48	:00	:14	1:49	:13	:40	:52	:20	:37	:55	:01	:19	:01	:00	:00	:25	:00	:06
Consultation Health Teaching	:22	:00	:11	:23	:01	:12	:14	:04	:09	:16	:00	:00	:30	:07	:20	:47	:00	:17	:29	:02	:16	:19	:00	:06

Time given in hours & minutes.

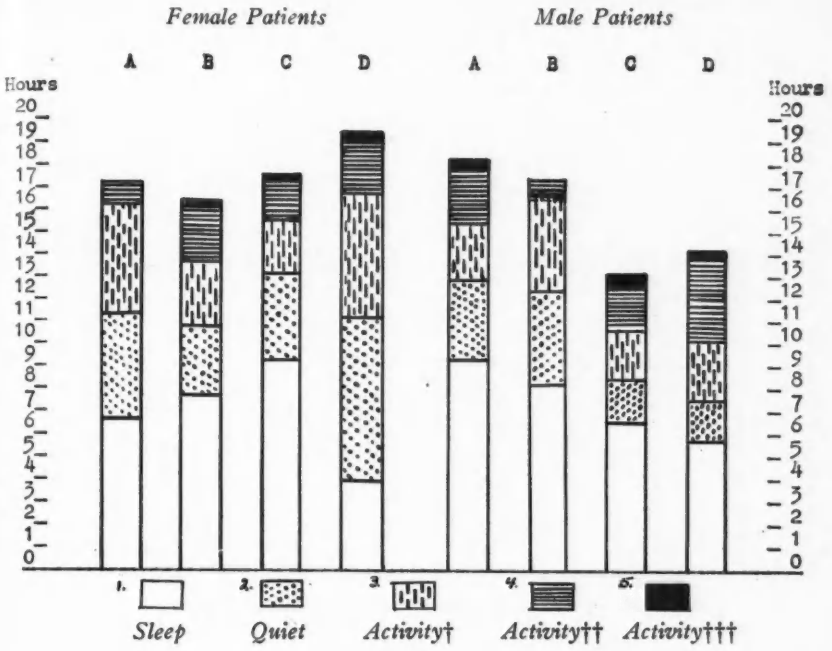

Figure 2. Mean time in hours per day spent in sleep, quiet, and varying degrees of activity by each of four female and four male cardiac patients.

second question, "Who are the people who participate in the activities of the patient, what do they do, and for what period of time are they with the patient?"

The variation in the number of hospital and professional personnel who gave care to the patient or took part in other activities at the bedside during each 24-hour period of the patient's observation is shown in *Figure 3*. The smallest number of persons participating at the bedside of any one patient for any 24-hour period was nine. This patient was discharged the following day. The maximum number of persons with any one patient was 28 which occurred on three different days in relation to three different patients. The average number of hospital and professional personnel with the patient in a 24-hour period was 20.

The percentage distribution of the total time spent with the eight patients by seven categories of professional and hospital personnel may be seen in *Figure 4*. This graph may be more meaningful when the total time is computed as a daily average and converted into hours and minutes. For example, the average time per day spent at a patient's bedside by all professional and hospital personnel was 3 hours and 57 minutes.

It will be noted in *Figure 4* that nurse internes** gave the largest proportion of the total time spent at the bedside by all professional and hospital personnel (24 per cent); and that student nurses and nursing assistants shared equally in the amount of time spent at the patients' bedside (21 per cent each group). The graph also shows that graduate nursing service staff was responsible for 13 per cent of the total time all personnel spent

**Nurse internes are third-year students enrolled in the three-year basic professional nursing course at the Atkinson School of Nursing of the Toronto Western Hospital, Toronto, Ontario.

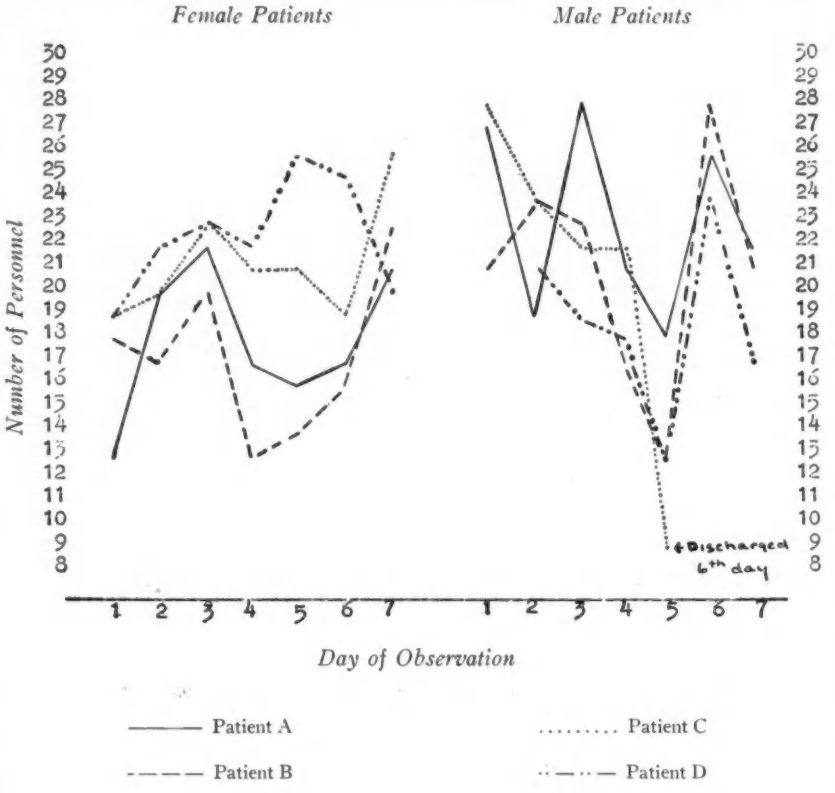

Figure 3. Number of professional and hospital personnel with each of 8 cardiac patients during each 24-hour period of observation.

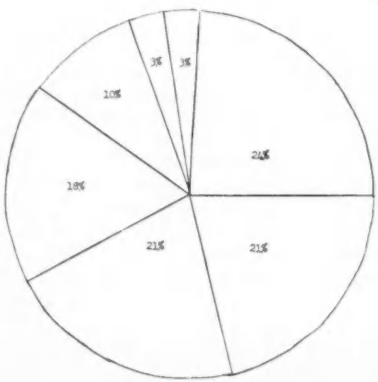

Figure 4

Figure 4. Percentage distribution of total time spent by professional and hospital personnel at the bedside of eight patients during an observation period of 53 patient days.

24%—Nurse internes
21%—Student nurses
21%—Nursing assistants (Male and Female)
18%—Medical staff and medical students
10%—General staff nurses
3%—Nursing Admin. staff
3%—Other

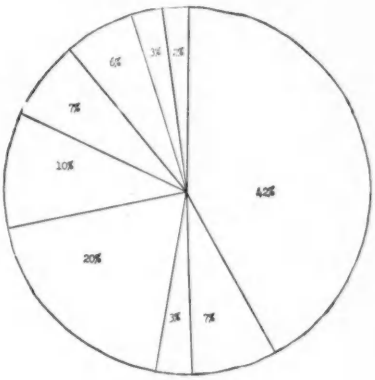

Figure 5

Figure 5. Percentage distribution of time spent with 8 patients in 9 categories of activity by professional and hospital personnel. (Data based on 1,272 hours of observation).

42%—Bathing, grooming, general comfort measures

7%—Mealtime activities

3%—Activities assoc. with elimination

20%—Diagnostic measures and other activities to gain information

10%—Treatment

7%—Consultation, health teaching

6%—Miscellaneous

3%—Socializing

2%—Care of environment

with patients; that 10 per cent of this time contributed by nursing service personnel was given by general staff nurses and 3 per cent by nursing administrative staff (supervisors, head nurses, and assistant head nurses).

As also depicted in *Figure 4* medical personnel accounted for approximately one-fifth of the total time all personnel spent at the patients' bedsides. Activities of medical students, however, accounted for 41 per cent of this time. Nursing instructors, dietitians, ministers, representatives from service agencies, ward clerks, ward aides, laboratory technicians, and librarians, all of whom were included in the category of other personnel, were responsible for the remaining proportion of the total time (3 per cent).

The percentage distribution of the total time spent at the bedside by all professional and hospital personnel, classified according to type of activity performed, is shown in *Figure 5*. As would be expected general care and hygiene including activities associated with mealtime and elimination, accounted for the largest proportion of the total time (52 per cent), and activities related to diagnosis and treatment ranked second (30 per cent of the total time). The remaining time was devoted to consultation and health teaching (7 per cent of total time), socializing (3 per cent), care of environment (2 per cent), and miscellaneous activities (6 per cent).

A comparison of the activities performed for and with patients by four categories of nursing personnel may be made from a study of *Figure 6*. By comparing the four graphs a similarity may be noted in the time distribution of the activities of graduate nurses and nurse internes; likewise, between the graphs representing the activity-pattern of student nurses and nursing assistants. These graphs also show that all four nursing groups devoted the largest proportion of their time at the bedside to activities related to the general care of the patient and his environment (categories 1 to 4 inclusive), and that, if the percentages of time devoted to activities associated with treatment and diagnosis are combined for each category of personnel, these activities have next priority.

In relation to the four groups represented in *Figure 6*, it is interesting to note that proportionately the graduate nurses spent the most time in consultation and health teaching (8 per cent of their time), and that the nursing assistants did more socializing with the patient than any other group (7 per cent of their time).

Reference to a particular patient may serve to highlight the preceding data as well as specifically illustrate the implications of *Figures 3, 4, 5,* and *6*. For example, data from observation of Female Patient D during one 24-hour period showed that 22 people participated in her care for a

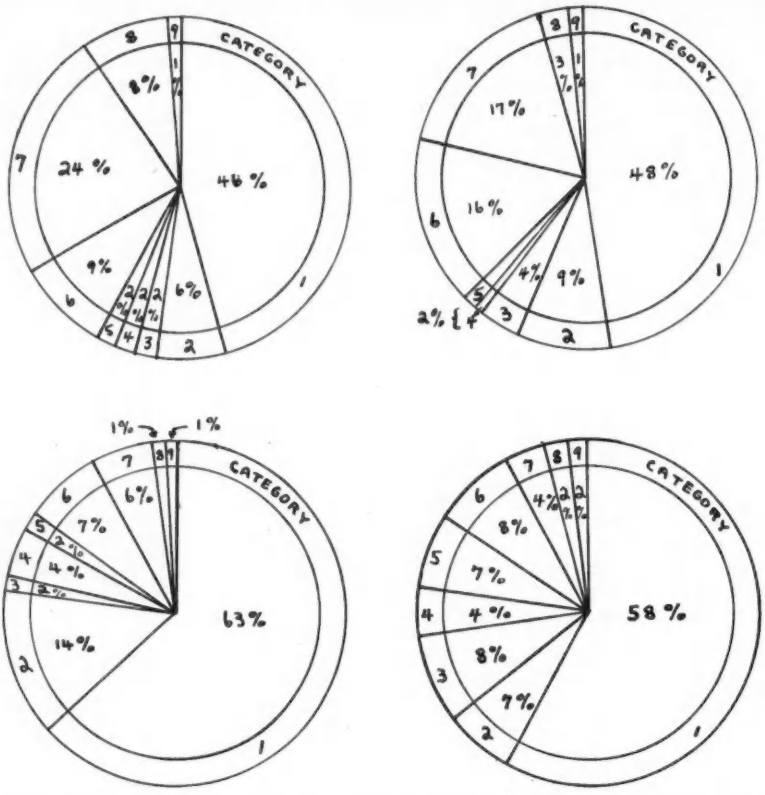

Figure 6. Percentage distribution of time spent with patients by each of four categories of nursing personnel — General Staff Nurses, Nurse Internes, Student Nurses, Nursing Assistants — classified according to type of activity performed.

Category 1 — bathing, grooming, providing general comfort measures
2 — mealtime activities
3 — activities associated with elimination
4 — care of environment
5 — socializing
6 — diagnostic activities
7 — activities related to treatment
8 — consultation and health teaching
9 — miscellaneous

total period of 3 hours and 38 minutes. A further analysis of these figures gives the information above.

The nature of the activities performed by these persons and the total time spend in these activities follows on the next page.

Concluding Remarks

At this time it is impossible to draw conclusions from these findings. The material presented has been purely descriptive and has related only to the first two questions this study was designed to answer. Next steps will in-

Number of persons with the patient	*Category of Personnel*	*Combined total time with the patient*
2	Medical staff	15 minutes
2	Nursing administrative staff	3 minutes
3	General staff nurses	30 minutes
6	Nursing internes	117 minutes
2	Student nurses	14 minutes
5	Nursing assistants	16 minutes
1	Ward aide	1 minute
1	Priest	2 minutes
Total 22		198 minutes

Nature of Activity	*Total time spent in Activity*
Performing general care	101 minutes
Care of equipment and environment	3 minutes
Mealtime assistance	12 minutes
Activities associated with elimination	5 minutes
Diagnostic measures and methods to gain information	29 minutes
Performing treatments	42 minutes
Consultation and Health teaching	6 minutes
	198 minutes

clude a study of the symptoms and changes in condition the patients displayed, and of the problems they experienced during the course of their hospitalization. When this analysis is completed an attempt will be made to interpret the findings in answer to the last two questions.

The *Nursing Times* has announced the award of its first travel bursary. The winner is Miss Katherine Mary Jones, S.R.N., S.C.M., District Nursing and H.V. Cert., Industrial Nursing Cert. She is the education officer at the Birmingham Centre of Nursing Education of the Royal College of Nursing. Later this year Miss Jones will visit Canada and the United States.

The *Nursing Times* published in London, England, plans to award a similar bursary in 1961.

* * *

Brain work is certainly tiring. I get all worn out just thinking of the things I ought to be doing.

— *Hospitals*

* * *

Women are gradually making a name for themselves in many professions once regarded as men's work. Yet the great majority of professional women are in fields that have been traditionally considered "suitable for women."

There are many reasons for this, most of them associated with the social and educational pattern of woman's life. Professional work generally requires a long period of training and often university graduation . . . But because most women do not expect to be employed full time throughout their lives, and because it is still difficult for women to establish themselves in fields that have been traditionally considered men's work, relatively few devote themselves to preparing for professions that require the longest period of training . . .

At the time of the 1951 census more than three-quarters of all professional women were either teachers or nurses. However, in comparison with 1931 figures the number of social service workers, journalists, librarians had shown a substantial increase.

By far the most important profession for women numerically, is the teaching profession. More than 70 per cent of all teachers (in Canada) are women.

— Dept. of Labour of Canada.

PREPARED IN YOUR NATIONAL OFFICE, CANADIAN NURSES' ASSOCIATION, OTTAWA

British Nurse to Participate in Institute

Miss FRANCES GOODALL, former general secretary of the Royal College of Nursing, London, England, will take part in the second institute for staffs of national and provincial nursing associations to be held September 14-19, 1959.

Designed to assist professional staffs to maintain and improve the service rendered to association members, the institute will take the form of formal presentations with special speakers, group discussions and the use of films and other visual aids.

Planned by the executive secretaries themselves, under the sponsorship of the Canadian Nurses' Association and with CLARA VAN DUSEN, executive director of the Alberta Association of Registered Nurses as planning chairman, the institute will cover the following topics:

1. Techniques in Counselling, Guidance and Placement.
2. Office Administration
   (a) Evaluation techniques for employees
   (b) Selection and placement
   (c) Work simplification in office management
3. Research
   (a) Principles of research
   (b) Techniques
   (c) Preparation
   (d) Compilation
4. Registration Procedures
   (a) Procedures and principles of reciprocal registration leading to the eventual standardization of policies on a dominion-wide basis
   (b) Disciplinary measures
5. Implementation of Employment Relations program — Methods and techniques of negotiating

MARGARET KERR, executive director of *The Canadian Nurse* will act as chairman during the week's program.

The Director's Busy Schedule

HELEN MUSSALLEM, director of the Pilot Project for the Evaluation of Schools of Nursing still maintains a busy schedule although the survey of 25 schools has been completed. Recent travels and projects included an institute at the University of New Brunswick, participation at the Maritime Hospital Association Meeting at St. Andrew's, N.B., an institute planned by the nurses of Cape Breton and Victoria County Branch, R.N.A.N.S. in Sydney, N.S., and an institute planned by the hospitals in Sudbury, Ontario.

A further workshop on Evaluation and Accreditation is planned by the A.N.P.E.I. and here assistance will be given by Blanche Duncanson, one of the regional visitors for the Project.

The General Secretary Abroad

Following the July 6 to 10 meeting of the Board of Directors of the International Council of Nurses in Helsinki, Finland, our general secretary, PEARL STIVER, visited the Danish Council of Nurses in Copenhagen, Denmark and The National Nurses' Association of the Netherlands in Amsterdam, Holland where, as well, visits were made to hospitals and public health agencies.

A visit to London afforded an opportunity to plan with the National Council of Nurses of Great Britain and Northern Ireland for the study

tour for Canadian nurses planned in conjunction with the Post-Convention European Tour in June 1960.

A Welcome awaits us in 1960

FRANCES ROWE, executive secretary of the National Council of Nurses of Great Britain and Northern Ireland, who is assisting us in planning the British section of the Post-Convention Study Tour (details in June, 1959 issue), has extended a welcome to all Canadian nurses. We quote from a recent letter:

> Our Council and members look forward wholeheartedly to welcoming the nurses from Canada and we will do our very best to make their visit worth while.

News of CNARP Spreads

Opportunity has been afforded LAURIE MCCOLL, assistant secretary-treasurer to interpret the CNA Retirement Plan in various parts of Ontario through invitations extended by district and chapter associations.

At District no. 9 annual meeting at Sault Ste Marie she spoke to representatives from North Bay, Sudbury and Sault Ste Marie Chapters on the CNARP outlining its benefits and stressing its value to nurses for whom it is established. "The Widening Circle" was the topic on which Miss McColl spoke at the banquet where the ever-widening circle of CNA activities and the oneness of nurses in the international nursing family today was portrayed.

The "Pattern for Security" which is in reality, the CNA Retirement Plan, was described to the nurses of District no. 12 at their annual meeting at New Liskeard where chapter representatives from Timmins, Kapuskasing, Kirkland Lake and New Liskeard were in attendance. Visits were also made to hospitals in Sudbury and North Bay where interpretation of the CNA Retirement Plan and its benefits was given.

In the Good Old Days

(The Canadian Nurse — AUGUST, 1919)

Ten Commandments of Marshal Foch:

1. Keep your eyes and ears ready, and your mouth in the safety notch; and it is your soldierly duty to see and hear clearly, but, as a rule, you should be heard mainly in the sentry challenges or the charging cheer.

2. Obey orders first, and, if still alive, kick afterwards if you have been wronged.

3. Keep your arms and equipment clean and in good order; treat your animals fairly and kindly, and your motor as though it belonged to you and was the only one in the world. Do not waste your ammunition, your gas, your food, your time, nor your opportunities.

4. Never try to fire an empty gun, nor at an empty trench; but when you shoot, shoot to kill; and forget not that, at close quarters, a bayonet beats a bullet.

5. Tell the truth squarely. Face the music and take your punishment like a man; for a good soldier won't sulk.

6. Be merciful to the women of your foe and shame them not, for you are a man; pity and shield the children in your captured territory, for you were once a helpless child.

7. Bear in mind that the enemy is your enemy, and the enemy of humanity, until he is killed or captured; then he is your dear brother or fellow-soldier, beaten or ashamed, whom you should not further humiliate.

8. Do your best to keep your head clear and cool, your body clean and comfortable, and your feet in good condition; for you think with your head, fight with your body, and march with your feet.

9. Be of good cheer and high courage; shirk neither work nor danger; suffer in silence, and cheer the comrades at your side with a smile.

10. Dread defeat, but not wounds; fear dishonor, but not death; and die game. Remember the motto of the division: "It shall be done."

Nursing Profiles

This month **Elsbeth Geiger** took up her new duties as director of nursing at Edmon-

(Rice)

ELSBETH GEIGER

ton's Royal Alexandra Hospital. Born and educated in Montreal, most of her professional life to date has been spent in that city. After graduating from the Royal Victoria Hospital, Montreal in 1942, she engaged in operating room work until she joined the United States Public Health Service in 1944 for a two-year tour of duty with UNRRA. She subsequently spent a similar period of time at the United States Marine Hospital, Staten Island, N.Y.

Postgraduate study earned her the degrees of Bachelor of Nursing from McGill University and a Master of Arts from Teachers College, Columbia University. In 1951 Miss Geiger accepted an appointment as director of nursing at the Queen Elizabeth Hospital of Montreal. She resigned from this position to accept her present one.

Her keen interest in nursing education has been manifested through her work on the curriculum committee of the ANPQ and in the development of the undergraduate program of the Queen Elizabeth Hospital. She has served her provincial association faithfully in other offices as well. The congratulations and best wishes of her friends and colleagues are extended to her in this new venture.

Margaret Mary Matheson is the new president of the RNANS. Although born in Cambridge, Massachusetts, she is of Scottish-Canadian stock. She received her early education at the Owen Sound, Ont. Collegiate and Ottawa Ladies' College prior to entering the school of nursing of the Royal Victoria Hospital, Montreal.

Five years of general staff duty in her home hospital preceded a lengthy period of time in private nursing. Then in 1952 Miss Matheson joined the staff of Aberdeen Hospital, New Glasgow, N.S., as instructor. She has been director of nursing education since 1956. She is the immediate past president of the Pictou County branch of the RNANS and has served for some time on the provincial board of examiners.

Reading, swimming and music are favorite off-duty activities with membership in the Canadian Professional and Business Women's Club as an additional interest. This year Miss Matheson was made an honorary life member of the St. John Ambulance Association.

(Mackenzie Studio)

MARGARET MATHESON

Ida Evelyn Johnson has retired as director of nursing of the Royal Alexandra Hospital, Edmonton after 10 years of service in this role. Her complete record of service extends over many more years than this, since with the exception of time spent in

(Little Studio)

IDA JOHNSON

postgraduate study, almost her entire professionnal life has been devoted to "The Alex."

Although born in British Columbia and partially educated there, she came to Alberta very early in life, first to complete her basic education and then to obtain her professional preparation at the R.A.H. Later she went on to the Woman's Hospital, New York, and the University of Western Ontario for advanced study. In spite of a busy round of nursing duties both within the hospital and in professional organizations, Miss Johnson's interests have extended to various community activities. She has always derived a great deal of enjoyment from meeting people and making new acquaintances. Retirement from active duty will, it is hoped, give her greater opportunity to pursue this pleasure through travel and to indulge her love for golfing, for music and for gardening.

In Memoriam

Ena Violet (Hassall) Anderson, who graduated from the Vancouver General Hospital in 1927 died recently in Victoria, B.C. During World War II she was in charge of the British Columbia canteen which was set up in London on the arrival of the first Canadian contingent. Mrs. Anderson was awarded the M.B.E. in recognition of her services. Upon returning to Canada she engaged in private nursing until shortly before her death.

* * *

Elizabeth (Clarke) Dorland, a graduate of the Royal Alexandra Hospital, Edmonton in 1914 died on May 29, 1959. In 1918 she was one of the first four nurses who joined the newly formed Municipal Public Health Service. She helped to organize the first travelling clinic in the province and assisted in its operation in outlying districts.

* * *

Muriel Grace Galt, a graduate of Massachusetts General Hospital, Boston died on May 31, 1959. She was chosen for duty on the hospital ship sent to the Caribbean during the Spanish-American war and in 1914 she volunteered for overseas nursing, serving in France, Egypt, India, Iraq and with the occupation forces in Germany. She was 85 years of age.

* * *

Bertha McLaurin, who graduated from St. Luke's General Hospital, Ottawa in 1911 died in May, 1959. She had engaged in hospital work until her retirement in 1956.

* * *

Gabriella (Sargent) Purcell, a graduate of the Hotel Dieu Hospital, Windsor in 1927, died recently.

* * *

Frances (Gunson) Rathwell, who graduated from Brandon General Hospital in 1953 died April 2, 1959. At the time of her death she was on the staff of the Brandon Hospital for Mental Diseases.

* * *

Emma Schumann, a graduate of Guelph General Hospital in 1932, died on October 25, 1958. Much of her professional career had been spent in occupational health nursing with the Dominion Rubber Company.

* * *

Barbara Mary (Hare) Scobbie, a graduate of St. Paul's Hospital, Vancouver in 1945 died recently after a lengthy illness.

* * *

Mary Dorothy Shoemaker, who graduated from the Royal Victoria Hospital, Montreal in 1930 died suddenly on June 3, 1959.

* * *

Sister Rose Angela, a Sister of Charity of St. Vincent de Paul, Halifax and a graduate of Hamilton Memorial Hospital, North Sydney (now the Saint Elizabeth Hospital) died May 8, 1959. In 1947 she

(Please turn to page 736)

The Artificial Kidney

JUDITH C. RACKHAM

THERE ARE a few relatively uncommon conditions which cause such severe and extensive damage to the kidneys that, for the time being, their function is wholly or partially suspended. Fortunately, this damage is not always irreversible and recovery is possible, given time. Some of the products of cellular activity which the kidney normally excretes will, if retained, alter the body chemistry in such a way that it cannot work. Thus, the patient's survival will depend on whether or not kidney function will return.

The artificial kidney is a temporary device designed to take over for a short time the more essential functions of the ordinary kidney. By its use, a patient can be kept alive for two or three weeks longer. Thus the chance of his own kidneys recovering their function is proportionately increased.

This sort of renal crisis arises when the cells of the tubules are damaged by such events as a fall in systolic blood pressure to below 60 or 70 mm. Hg. for a considerable time, as the result of an accident or an operation. The blood supply of the kidney is so critically important that, during rest, 30 per cent of the circulation passes through it. Its cells are so delicate that they are very sensitive to anoxia. If this is prolonged a condition called "tubular necrosis" results. It must be understood at the very beginning that *only about half the cases of tubular necrosis need dialysis;* the rest can be restored by less heroic measures.

The artificial kidney is able to save about one-third of the very worst cases. In order to appreciate its advantages it is necessary to know something about normal renal function. The kidney is mainly concerned with the regulation of body water and salts and the excretion of waste products of cellular metabolism.

This paper is based on my experience as a member of a team working on the artificial kidney at the Hammersmith Hospital Postgraduate Medical School, London, Eng.

Body Water, Electrolytes

Seventy per cent of the body is made up of water. It exists in three compartments each separated from the others by membranes through which water can flow freely, while dissolved substances are held back to varying extents. These three compartments are known as:

1. *The intracellular space* which contains half of all water (about 35 litres). In this are dissolved large protein molecules. Potassium is the major cation, and sulphate and phosphate anions are also present.
2. *The interstitial space* between the cells and the capillary walls, contains 15 per cent of the body water (or about 11 litres). In this water sodium is the most important cation, and chlorides and bicarbonates the most important anions. Small quantities of proteins are also present.
3. *The intravascular space* — that is to say the blood vessels and capillaries — hold only five per cent of the total body water. It contains much more proteins than the interstitial space.

The membrane which divides the intravascular from the interstitial space is the capillary wall. It is almost impermeable to protein, but freely permeable to small ions and to water. The cell membranes which divide the interstitial from the intracellular space are impermeable to protein, selectively permeable to other ions, but freely permeable to water.

Since water passes freely between all three spaces, they will all be in osmotic equilibrium with each other. Any change in osmotic pressure in one space is quickly shared by all the others. The kidney controls the total volume of the body water, through the varying total volume of its daily excretion. Thus, in whichever compartment chemical changes take place they are ultimately reflected in the contents of the intravascular compartment. As the blood passes through the kidney its contents are rejected or retained in such a way as to keep its consti-

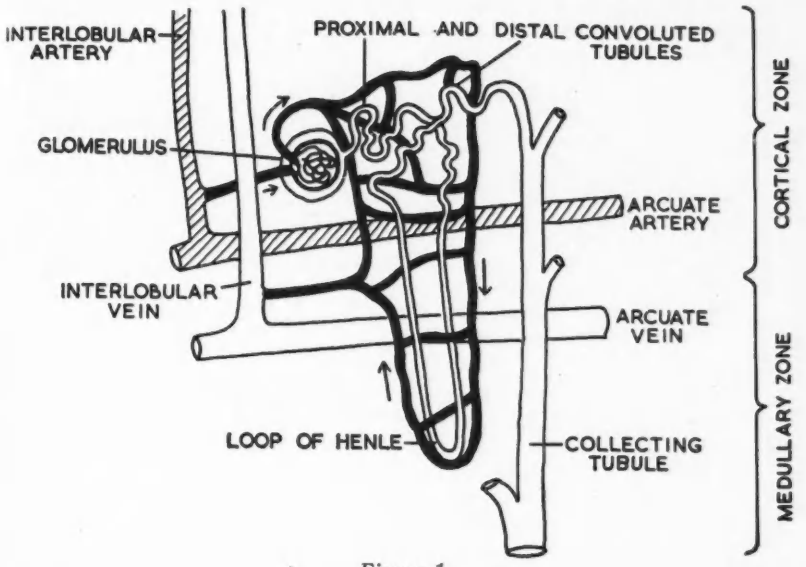

Figure 1

tution remarkably constant. Since these materials are all dissolved in water there must always be an adequate volume of water for the kidney to excrete if it is to function properly.

The Normal Kidney

The kidney is made up of an outer zone about a quarter of an inch thick, the cortex; and a sharply differentiated inner zone, the medulla. Under a microscope the innumerable renal units, the nephrons, appear as minute tubules extending into both zones. (See *Figure 1.)* Each tube is closed at the upper end and empties at the lower end into the renal pelvis. The blind upper end has a thin epithelium that is expanded to surround a tuft of capillaries — a glomerulus. The capillary wall and glomerular membrane together form a filter, through which water, ions and small molecules will pass, but which keeps back all but the very smallest of the protein molecules. Thus the glomerulus fills with a filtrate of the blood plasma from the capillaries. The filtrate trickles down the tube to the renal pelvis. The tube is lined by larger cubical cells, metabolically very active, whose function is to absorb from the filtrate substances useful to the body; to excrete other substances which are not, and finally to reabsorb 99 per cent of the water of the filtrate.

In general, there are three ways in which the tubule cells can react to substances in the filtrate:

1. The substance may pass straight through without either reabsorption or further excretion. A good example of this is creatinin. The reaction to urea is similar, but more complicated. The tubules do not absorb or secrete it actively but since it is a very small and un-ionized molecule, it diffuses back through the tubule cells at a rate which depends on its concentration in the filtrate.

2. Substances may be actively excreted by the cells from the capillary blood which surrounds them. Many drugs behave like this, and some, such as benzoic acid are so actively excreted that all the blood flowing through the kidney is cleared of the substance completely.

3. The substance may be reabsorbed by the tubule cells. There is usually a limit to the rate at which they can reabsorb, which forms a threshold. If there is more than this in the filtrate, the surplus will appear in the urine.

Sugar is an example of this. Normally, it is completely reabsorbed, but if the blood sugar is high, then it appears in the urine. For some substances, the

level of the threshold is controlled by the secretion of a hormone, providing a regulating mechanism. Perhaps the most important examples of this are the regulation of sodium reabsorption by aldosterene, and of water reabsorption by pituitary anti-diuretic hormone.

The kidney also plays a major role in the long-term regulation of the body's acid-base balance, the short-term regulation being achieved by the respiratory centre's control of the level of CO_2 in the alveolar air. The long-term regulation is partly achieved by the specific control of the concentration of each of the ions which make up the balance, and partly by the special secretion of hydrogen and ammonia ions at rates dependent on the pH of the blood and filtrate.

To sum up: The kidney is able to control water and electrolyte balance with great accuracy, and evens out differences between intake and output by excreting or retaining more or less of the various ions or of water. It plays a part in regulating acid-base balance, and it excretes waste or harmful products. To accomplish this task it needs an abundant supply of energy in the form of oxygen and glucose, and this depends on an adequate blood supply.

Tubular Necrosis

The cells that line the tubules are the ones that are most liable to damage from oxygen lack, reduced blood supply or poisons. In tubular necrosis, whatever its cause, normal renal function is altered and often suspended. Patients with tubular necrosis may be very ill indeed, and they break down their own cells to provide water and energy. Earlier we noted that potassium was the most important cation in the intracellular space. When cells break down potassium diffuses into and accumulates in the intravascular and interstitial spaces. A level of blood potassium, as high as 7-8 milli-equivalents per litre, for more than a short time is incompatible with life because it poisons the cardiac muscle. Its retention is one of the most immediate problems which the artificial kidney is designed to correct.

In the early stages, the tubules are completely blocked by necrotic debris from degenerating tubule cells, and secretion of urine may cease altogether. If recovery takes place, the young cells of the regenerating tubule epithelium are at first incapable of any specific function.

In the later stages of tubular necrosis there is also a complete inability to make any adjustments in urinary output to even out changes in water and salt intake. Serious dehydration may occur which requires very accurate and prompt treatment. The filtrate passes straight through the tubules without water reabsorption, so that urine volumes are very large. This is called the *diuretic phase.*

The Artificial Kidney

The artificial kidney is, in essence, a dialyzing machine. Dialysis occurs when two solutions are separated by a semi-permeable membrane — one that is permeable to some but not all of the dissolved substances. Substances which can pass through will tend to equalize themselves between the two solutions, while the passage of water across the membrane is controlled by the osmotic pressure existing on each side of the membrane. Tissues such as peritoneum, capillary and glomerular cell walls, are all semi-permeable. We have seen that an electrolyte such as potassium will go from a space of higher concentration to one of lower.

In the artificial kidney, a tube of Cellophane that has been specially constructed is used, through which the blood is made to pass. The outside of the tube is immersed in a suitable water bath so that toxic and undesirable products will diffuse out from the circulation into the water bath. The permeability of this Cellophane is very similar to that of the glomerular membrane: proteins are held back, while most small particules are let through. Thus, the artificial kidney can take the place of the glomeruli, but cannot replace the specific controlling functions of the tubules; yet these can to some extent be controlled by the contents of the water bath.

Some Causes of Tubular Necrosis

1. *Anoxic* — from reduced oxygen or diminished blood supply. The latter may be due to blood loss, hypotension, or local vasoconstriction.

Shock produces a disparity between the

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Revision: General Considerations

The chief concern in this revision has been to present the principles of nursing care of surgical patients so that the student nurse will (1) understand not only "what to do and what not to do" but "how it is done and why," (2) recognize the extent of her responsibilities and how they are related to the activities of other persons on the health team, and (3) accept her role as a teacher in assisting the patient and his family to make necessary adjustments.

Revision: Specific Considerations

Some of the specific changes in and additions to this edition are:

- **A completely rewritten treatment of "Operating Room Nursing"**
- **A new chapter on the principles of rehabilitation**
- **Addition of newer methods of treatment and an up-to-date section on radiation therapy to "Tumors and Cancer Nursing"**
- **Newer methods of treating chest tuberculosis in "Surgery of the Chest"**
- **Inclusion of recent advances in "Surgery of the Heart and the Blood Vessels"**
- **A compact section dealing with "Nursing in an Emergency or Disaster"**

Preview and Review

Introductory paragraphs and brief reviews of pertinent anatomy and physiology lead into the main body of the various units. "Clinical Situations" which crystallize key points covered and "Patient Teaching Aids" follow each chapter in Part II.

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Redesigned in an entirely new 6 x 9 format and reset in a highly readable type-face, this edition offers greatly increased ease of teaching and learning.

CONTENT CORRELATION

Surgical Nursing

PART I:	FUNDAMENTALS OF SURGICAL NURSING
UNITS 1 - 6	
PART II:	NURSING CARE OF PATIENTS WITH SPECIFIC SURGICAL CONDITIONS
UNIT 7	RESPIRATORY
UNIT 8	CIRCULATORY
UNIT 9	DIGESTIVE
UNIT 10	URINARY AND REPRODUCTIVE
UNIT 11	INTEGUMENTARY
UNIT 12	EYE AND EAR
UNIT 13	ENDOCRINE
UNIT 14	NERVOUS
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UNIT 16	

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Associate Director, School of Nursing, Massachusetts Memorial Hospitals and Clinical Assistant in Medical and Surgical Nursing, Boston University School of Nursing.

CONTENT CORRELATION

Essentials of Medicine

PART I: FUNDAMENTALS OF MEDICAL NURSING

UNITS 1 - 6

PART II: NURSING CARE OF PATIENTS WITH SPECIFIC MEDICAL CONDITIONS

UNIT 7 RESPIRATORY

UNIT 8 CIRCULATORY

UNIT 9 DIGESTIVE

UNIT 10 URINARY AND REPRODUCTIVE

UNIT 11 INTEGUMENTARY

UNIT 12 ALLERGY

UNIT 13 ENDOCRINE

UNIT 14 NERVOUS

UNIT 15 MUSCULOSKELETAL

PART III: NURSING IN AN EMERGENCY OR DISASTER

UNIT 16

The end product of thorough revision and improvement, the new 18th Edition of ESSENTIALS OF MEDICINE presents a truly complete, a thoroughly up-to-date, a logically organized and smoothly communicated survey of its field. Its long history as a recognized authority in combination with the constant endeavor of its authors to keep it modern in every respect, make it close to the ideal in textbooks of medical nursing.

Reorganized for Closer Correlation with Eliason's SURGICAL NURSING

Now divided into 3 major parts and subdivided into 16 units, the book lends itself more than ever before to the widest range of teaching methods and patterns. The chart at the left will show graphically just how these divisions have been handled.

Revision: General Considerations

Sequence, selection and emphasis of content have been managed so that "core" knowledge and principles are presented first. Thus, Part I is fundamental to the entire book, just as the orientation sections are basic to the units which they precede. In a field of increasing complexity, the simplification of teaching and learning inherent in such an arrangement should prove especially welcome.

Revision: Specific Considerations

A partial listing of "What's New" in the 18th Edition follows:

- **A new unit on laboratory tests giving purpose, principles and range of values for each test discussed**
- **A new section on the intensive care unit of the hospital**
- **A new section on medical emergencies**
- **A new chapter on "Psychological Considerations in Medical Nursing" which presents principles of effective nurse-patient interaction**
- **The presentation of material on communicable disease nursing in Part I so that asepsis technics can receive early emphasis**

Preview and Review

To facilitate complete assimilation of unit-content, orientations as well as brief anatomy and physiology reviews are provided. To tie up threads and to assist the student in correlation and integration, "Nurse and Patient" sections follow many units and each unit in Part II closes with a "Correlated Summary of Common Nursing Problems."

New Format

This edition has been completely redesigned typographically for increased study ease in a new 6 x 9 format identical with that of Eliason's SURGICAL NURSING.

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circulating volume and the vascular bed and consequent upon it, anoxemia — renal ischemia — tubular necrosis.

Hemorrhage from whatever cause leads to a diminished circulating blood volume and hypotension — renal ischemia — tubular necrosis.

Hypotension: In addition to the reasons given above, this may occur during or after prolonged anesthesia.

2. *Toxic* — poisons, sepsis, necrosis or other tissues.

Poisoning: Carbon monoxide, or gases and fluids which are specifically nephrotoxic — mercuric cyanide, arsine chlorates and some antibiotics.

Infection: Septic emboli either post-abortion or with gross septicemia, staphylococcal pneumonia and leptospirosis leading to the same sequence as above.

Muscle necrosis: Often caused by prolonged pressure.

3. *Obstructive* — Mechanical, necrotic, or due to accumulation of hemoglobin, myoglobin or crystals.

Mismatched transfusions: The glomerular capillaries are constricted by spasm due to the broken-down red cells. There is also evidence that blockage with broken-down cells produces direct tubular damage.

Mechanical obstruction of any sort, such as carcinoma of bladder causing back pressure may cause acute renal failure. If the pressure in the lumen of the nephron is greater than the blood pressure in the capillaries, glomerular necrosis may occur.

Crush syndrome which is a combination of hypotension, muscle necrosis and hemoglobinemia. Multiple fractures after road traffic accidents; the patient trapped under heavy objects for some length of time; mining accidents; the patient being buried under falls; traumatic amputations. In all these cases there is extensive muscle damage and immediate shock. If there is obvious hemorrhage, this further diminishes the circulating blood volume which leads to a hypotensive phase. Hemorrhage — shock — hypotension — renal ischemia — tubular necrosis.

Initial Treatment

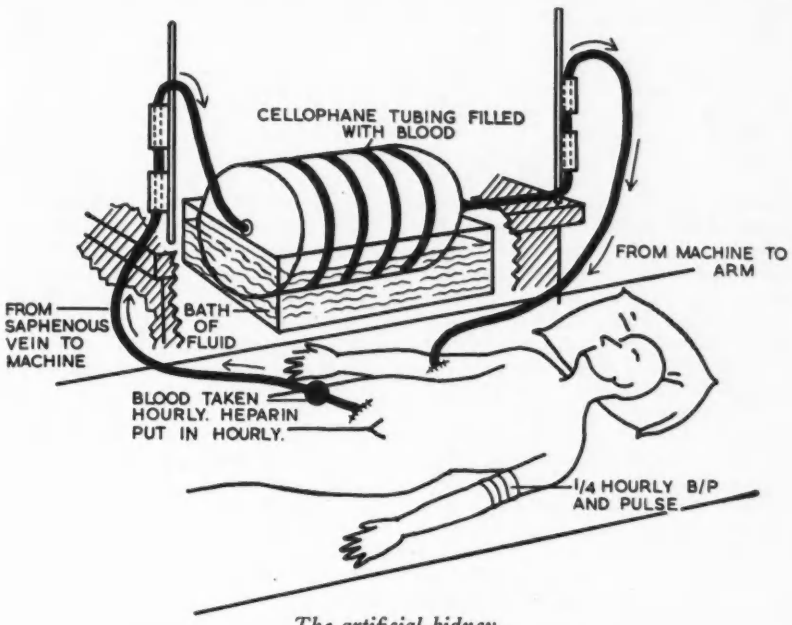
A polythene cannula is inserted into the superior vena cava through a vein in the forearm under local anesthesia. (It is preferable to do this in the operating theatre as infection can easily be introduced.) An intravenous infusion of dextrose 40% is started, 500 cc. being the total fluid intake allowed in 24 hours. This solution is not isotonic and so must be given into a large vessel in order that it may be rapidly diluted. It contains 800 calories and helps to minimize the patient's own protein breakdown, so checking the rise in urea and potassium. Soluble insulin 40 units is put into the solution to promote utilization of the sugar, 1,000 units (10 mgm.) of Heparin, to cut down the risk of clot formation at the end of the cannula (which may have to stay in for three weeks) and Vitamins B and C.

Vitamin B assists in glucose metabolism. Vitamin C assists healing and is part of the normal raw material of some of the adrenal cortical hormones. If the serum potassium is 5-6 meq. per litre, ion exchange resins are given by mouth.

A non-virilizing androgenic hormone which promotes protein "build-up" and helps to prevent "breakdown" is given twice daily by injection or by mouth. It checks the rise of urea and potassium in the blood.

If, on this régime, excretion of urine starts, an extra volume of fluid equivalent to the amount voided is also given to the patient as water by mouth. Lucozade or other potassium-free drinks may be used. Vomitus and stool are also measured and an equivalent amount of fluid given. If this treatment is going to be successful, the patient from being relatively anuric, gradually enters the "diuretic phase." The nephrons start to function and produce a dilute urine. Four or more litres may be voided in 24 hours and great care must be taken to see that the patient does not become dehydrated. Electrolyte and water balance must be as carefully regulated as before. A protein diet is introduced.

Throughout treatment, electrolyte levels of blood, urine and gastric aspirate or vomitus are measured daily. Replacement is assessed on the basis of the values obtained. If, in spite of the above treatment, the blood urea and potassium continue to rise (this may be marked in 48 hours) and the patient remains anuric, dialysis has to be considered.



The artificial kidney

Criteria for dialysis are: Changes in CO^2 combining power to less than 14 meq. per L, raised blood urea, and a raised serum potassium in an anuric patient. (Urea over 400 mg. %: K. over 7 meq. L.) Equally important is the clinical state of each patient which must be assessed beforehand. It is known that urea itself is not a toxic substance. The cause of drowsiness, lethargy and vomiting so often seen with a raised blood urea is not really known, but at present, work is in progress which may throw some light on it.

Dialysis

The machine (See *Figure 2)* consists of a stainless steel bath in which is supported a rotating drum, together with the pumps and motors required for circulation and movement of the drum. The drum is half immersed in fluid during dialysis. Wound on to the drum is a length (37 metres x 3 cm.) of sterile Cellophane tubing. This acts as a semi-permeable membrane. The bath contains 100 litres of distilled water into which is put:—

Glucose	1200 gm.
Sodium Bicarbonate	265 gm.
Potassium Chloride	30 gm.
Sodium Chloride	630 gm.
Magnesium Chloride	10 gm.
Calcium Chloride	30 gm.

Before the dialysis starts, one pint of heparinized blood (100 units) is fed into the machine to fill the Cellophane tubing. If the patient, lying in his own bed beside the machine, is apprehensive, Phenergan 50 mg. and sometimes Pethidine 50 mg. are given, intramuscularly. With aseptic technique and under local anesthesia the saphenous vein is exposed below its junction with the femoral, and a polythene cannula inserted. Blood from this vessel is pumped through the machine before it returns into the patient via a cannula in an arm vein (inserted in a similar way).

Blood runs at the rate of 200-300 ml. a minute into the Cellophane tubing. Blood pressure and pulse are recorded every two minutes for about one-half an hour after the patient has been attached to the machine. There must be no discrepancy between outflow and inflow as the patient can rapidly develop circulatory failure. When the blood pressure is stable, i.e., systolic 120-140, readings are taken every fifteen minutes throughout dialysis.

A blood sample is taken from the patient at the beginning of dialysis

for urea, potassium, sodium and CO_2 estimations, and then hourly samples are collected. The patient is given 100 units of Heparin every hour. Dialysis generally lasts for about six hours.

Since the Cellophane is semi-permeable, urea and other electrolytes will be exchanged between the blood and the bath fluid. The bath is made up with a high concentration of dextrose to maintain equal osmotic pressure on either side of the Cellophane membrane and thus prevent the transfer of water across the membrane. If the fluid were iso-osmotic, water would diffuse into the blood and cause, eventually, pulmonary edema. With equal osmotic pressure small molecules can diffuse either from blood to bath or from bath to blood. Since there is a higher concentration of urea and potassium in the blood, the direction of flow of these is out and not back. Disturbance of the level of the other major electrolytes is also partly corrected by the artificial kidney, since the bath contains them in concentration normal for human blood. During dialysis ions which are highly concentrated in the blood stream will diffuse from the blood to the bath and those which are high in the bath will diffuse into the blood.

The fluid in the bath is changed hourly. If it were not, the rate of diffusion of urea from the blood would gradually slow down, as urea accumulated in the bath. Similarly, if the patient's serum potassium is very high, less is put into the bath. Thus with hourly changes, the rate at which the plasma potassium is corrected is greatly increased.

After dialysis the saphenous cannula is removed and the vein ligated under local anesthesia. The arm cannula is changed, and dextrose 40% solution restarted. By the end of dialysis, the fall in the urea may be 300-350 mg.% and the fall in potassium 2-3 meq. L.

Patients may have to be dialyzed two or three times, but after and between each dialysis, treatment is continued with the regime already described.

Gastric Dialysis

In view of the extraordinary susceptibility of these patients to infection, an alternative method of management has been tried — "gastric dialysis." It is useful to reduce "acidosis" and serum potassium. In addition, it cuts down on the long-continued use of intravenous therapy with its attendant risks of infection from long duration of indwelling cannulae.

It is used primarily in "acidotic" patients with the result that hydrogen ions are washed out. An ion exchange resin can be put into the washout solution to effect a rapid lowering of serum potassium. The patient's urea level is also lowered since the wall of the stomach acts like the membrane of the artificial kidney. Marked changes in other serum constituents can also be brought about by this method.

A gastrostomy tube (Levine tube) is introduced under local anesthesia. Dextrose 5% in water, 100 ml., is put into the stomach through the tube, which is then clamped off for one-half hour. At the end of that time, it is aspirated. This washout is repeated but all the fluid used should be withdrawn from the stomach and the electrolyte content estimated. There is often a considerable fall in serum potassium levels after six hours, i.e., 2-3 meq. L. The principle is derived from the fact that huge electrolyte losses occur from the stomach in cases with pyloric stenosis and vomiting of stomach contents.

The Nursing and General Care of Anuric Patients

Anuria is not a disease *per se*. The patient's original disease or accident, which has caused the anuria must still be treated. Its nature will largely control the patient's régime. Accepted techniques of nursing, however, have to be modified or expanded to meet the unique needs of the anuric patient.

1. It has been found that anuric patients are prone to infections. It is wiser to use aseptic technique with all of them. One nurse is in sole charge of the patient during the day and one at night. She is always gowned and masked. All dressings are burned, and all linen carbolized. When there is an indwelling Foley catheter, it is attached to a sealed drainage bottle. (Tidal drainage is sometimes used.)

2. Patients with uremia have a known hemorrhagic tendency. Petechial hemor-

rhages and extensive bruising after injections are frequently noted. Epistaxes and gastrointestinal hemorrhages, when these patients are extremely ill, are unfortunately common. The hemoglobin can fall, without obvious bleeding, 20-30% in one day. Transfusion may be required at 48-hour intervals. It has been found preferable to use fresh donor blood in silicone treated bottles, so that there is minimal clotting factor loss. Vitamin K., 10 mg., is given twice daily, intramuscularly.

During the whole length of the patient's stay in hospital, the blood pressure and pulse are recorded one-half hourly day and night. The blood pressure is labile, the systolic varying frequently from 200-90. Ventricular fibrillation due to a raised serum potassium is also common.

3. Deviations from normal are seen in E.C.G. tracings when there is hypo or hyperkaliemia. The E.C.G. provides early evidence of this. Tracings are done initially twice daily, then daily.

4. Patients are nursed flat in bed, often having to stay flat for some weeks. They are turned from side to side every two hours, and are taught how to expectorate. Semi-conscious patients have secretions sucked out hourly and may require tracheotomy. Chest x-rays are taken every two days. Sputum is cultured for organisms and antibiotic sensitivities weekly.

5. All pressure points are treated hourly from the time of admission. We have found a zinc cream to be most satisfactory. Alcohol and powder are not used. Mouth and teeth are cleaned hourly, and glycerine painted on to the lips. A daily blanket bath is given.

6. Incontinence of urine and stool often occur. If it does not cause discomfort, a rubber bedpan may be left under the patient. Amounts of urine, stool, vomitus and sputum are measured and charted. An equivalent volume of fluid (water) is given by mouth, or intravenously.

7. All urine and vomitus are saved. The electrolyte content is estimated every 24 hours. Blood samples are taken daily for electrolytes, and on the basis of these figures replacement is undertaken.

8. Antibiotics are NOT given routinely.

9. When pyrexia is a feature of the illness tepid sponging is done twice daily. Often, one sheet is the only covering required. (Where the temperature has risen to 105°F., we have used hypothermia to lower the metabolic rate.)

A high temperature, however, may be due to septicemia. With a Staphylococcus *pyogenes* septicemia we have noted a state of collapse, markedly elevated temperature, pulse and respiration, and a constantly low blood pressure. If this is suspected, blood cultures are done.

The nursing of these patients is often controlled by the operation or type of injury that they have sustained previously. For colostomies we have found disposable plastic bags better than dressings and many-tail bandages.

Until active physiotherapy can be started for leg fractures a Thomas' splint or Tobruk splint with skeletal traction, and a padded foot piece to prevent foot drop, can be managed well. When there is leakage from any sort of fistula, a special catheter or sump drain inserted and attached to a low tension suction pump prevents excoriation of surrounding skin. It also enables the assessment of fluid and electrolyte loss and replacement to be dealt with more accurately.

Occupational Health Institute

The Waterloo-Wellington Occupational Health Nurses, province of Ontario, are sponsoring a Day Institute to be held on Saturday, October 25, 1959, at the Ontario Agricultural College, Guelph.

The hostesses are planning an interesting and challenging program. Details will be sent to occupational health nurses in Ontario late this summer. Anyone outside of Ontario may obtain information by writing to Mrs. Irene Lescum, c/o Burns and Company (Eastern) Limited, 901 Guelph Street, Kitchener, Ont.

* * *

Example is the school of mankind and they will learn at no other. — EDMUND BURKE

A Modern Version of Patient Care

EILEEN C. FLANAGAN, B.A.

Functional design — how it affects patient care and nursing.

THE MOST valuable and interesting part of the program of the International Hospital Federation Meeting held last year in Lisbon was the exhibition of models, plans and designs of hospital architecture. A great deal of original and progressive thinking is being done in this field all over the world. The Japanese had completely round buildings; many others had modifications of circles, squares, cart wheels, and pies!

With the rapidly changing conception of medical and nursing care, especially early ambulation, with the constantly increasing hospital costs and with the ever-present need to conserve nursing and other personnel, it is essential to consider carefully the accommodation devised for patient care. Actually there is one simple criterion to use in assessing the problem: how can the patient be given the best medical and nursing care?

The growth of the private room concept was due in great measure to the fact that the disagreeable features of bed care were carried out in the wards themselves, to the embarrassment of the patient and to others around him. The system of having private rooms isolated and segregated from the main teaching units of the hospital has increased costs and wasted the time of patients, doctors and nurses, and has not improved either medical or nursing care. In fact, the private patient in this system generally speaking, loses much in care, time and money.

Accommodation should be flexible, without fixed limits of classification either as to sex or financial categories. There should be units of varying sizes, from single rooms to eight-bed wards.

The center of the unit should be the nursing station, and the patient should be placed in the size of unit most suitable to his type of illness, stage of illness or his temperament.* Visual surveillance of the majority of patients should be mandatory. It is good for the patients both medically and psychologically and helps to conserve staff.

Some patients may, therefore, during their stay be moved from one type of accommodation to another as circumstances require, but they do not have to leave the nursing staff to whom they have become accustomed and who know them.

The secret of making the multiple wards attractive places to be in, is to remove all disagreeable features, such as bed panning, enemata giving, treatments, dressings and examinations to appropriate rooms in the unit provided for these purposes. This requires good 4 or 5-inch double ball-bearing castors on the beds, not the usual, inadequate kind usually found. As far as possible, recovery rooms, air-conditioned and properly equipped, should be attached to each unit so that the patient is with the staff he knows. There is a place for a general recovery room attached to the operating theatre for certain types of patients.

Advantages in nursing

There are many advantages in nursing all categories of patients of one service on the same floor and in the same unit. The total specially trained medical, nursing and technical staff, and all the special equipment for the particular service is available, and does not entail unnecessary duplication in other areas.

Another important feature is that it improves the teaching facilities and is a solution to the problem of keeping the interest of general staff nurses, who lose interest when assigned only to "private wards" where no teaching is carried out.

Miss Flanagan is Director of Nursing at the Montreal Neurological Institute.

*Nurses have always practised "intensive treatment care." In the old wards the patients who were very ill were always grouped about the nurses' desk!

To sum up, the most workable arrangements should be:

1. Make units flexible with various sizes of rooms.
2. Have nursing stations in the center of a "square," or circle.
3. Use glass partitions to give good visual control of most patients.
4. Keep patients of one type of illness *but* of all categories — private, semi-private and ward, men and women — in units suitable to their varying degrees of illness, to conserve staff and equipment, to improve nursing care, to increase interest; and save the time and energy of the medical staff in travelling through several buildings to visit their patients. The saving of time and cost to the patient should also be considerable.
5. Have all beds "hi-low" with sides attached, and with 4 or 5-inch double ball-bearing castors.
6. Make all doors wide enough to allow easy passage of beds.
7. Design the space with enema rooms, examining rooms, and dressing rooms attached to each unit.
8. Large bath rooms, fitted with showers (large enough to take a wheelchair), tubs for continuous baths, a slab bath, and a regular tub. Much of the bathing of patients can be done by a bath room team thus removing this procedure from the beds.

What can we do with what we have to improve conditions? *A great deal!* It is not impossible to break down solid partitions, put in glass instead of plaster, divide endless corridors into two or three sections, sacrifice a few beds and make the necessary work rooms. It costs money — but it would be well worth it in the long run, to conserve the energy of the staff and to improve patient care.

If each hospital would set up at least one such unit as a demonstration, and make it successful, it would not be long until the doctors and patients would realize its value.

There are several experiments going on now in Great Britain financed by the Nuffield Foundation and we should do the same.

A hospital consultant in New York said recently that "the sooner architects, administrators, finance committees, and budget makers seriously consider the *common denominator* in hospital planning, the sooner we will have hospitals flexible enough for multiple use and less susceptible to premature obsolescence." This statement applies equally to the *individual units within hospitals.*

A patient who recently had been ill in one of the new buildings, designed with long corridors, and as he expressed it, with "cells" opening off at regular intervals, and is at present in one of the new type of "square" units with the nursing station in the centre, wrote this little prayer with which I shall close:

Oh, architects, we pray thee,
Think round, think square!
Nurses and patients with this will agree,
That each has a reason the other to see;
Desist from planning linear slabs
and make the patients and nurses glad.
Oh, architects, we pray thee,
Think round, think square!

Ever since 1595, when the first book in English on the subject of swimming was published, warnings have been printed concerning the dangers of the water. Yet every year our country suffers heavy loss of life from this cause.

In that original publication, "A Short Introduction for to Learne to Swimme," the author, Christopher Middleton, suggests "to avoyde" drowning "I leave it to every several mans consideration how necessarie a thing this Art of Swimming is."

The spelling may be archaic, but the reasoning behind it certainly is not. Knowing how to swim, like preventive medicine, can be the means of avoiding much suffering and grief.

— The Canadian Red Cross, News Service.

* * *

Another way to relieve tension would be to regrow our prehensile tail. It has been shown that monkeys do not suffer from mental ailments or strokes because wiggling their tails seems to relieve them of pent-up emotional disturbances.

— Blue Cross *Health Digest*

A Letter to My Niece

THÉRÈSE ZALLONI, B.ED.N.

Dear Susan:

So you want to be a nurse! Well that's wonderful but do you really know what it is all about? Most likely not — you only find out what nursing is during your training and perhaps not until afterwards. At your age it is quite normal to undertake a career without knowing too much about it. That's why I feel that I should give you a glimpse of a nurse's life in the hope that it will help you to make your final decision intelligently.

First of all, you must realize that your present idea of a nurse is very different from what it will be in five years and this latter picture, in its turn, will no longer be the same in 10 years. In 15 years you will be wondering if you are suited for your career and whether you are really worthy of it. *Then* the picture of the perfect nurse — what you would like to be for the rest of your professional life — begins to take shape in your mind. At the same time you begin to see how far you have gone in reaching your ideal.

At present you have only vague ideas about the nurse and her duties. You picture her forever ready to share the troubles of others — physical and emotional. You see her as a sort of ministering angel, soothing or preventing injury and illness, responsible, kindly, learned. But as the years go by the extent of the nurse's role becomes clearer. The value of all that she does or should do becomes more and more clearly defined. Her life takes on meaning and the desire for the ideal is partially satisfied. The nurse feels the need to attain perfection in her profession and to avoid becoming mechanical.

This is why I say that your present idea of nursing will be different in five years. Don't pay too much attention to the attractive outward appearance — the white uniform, for example. Instead, think of what it represents. The traditional dress and cap hide responsibilities which the true nurse should be proud to assume.

What do you really expect from nursing? Do you plan on making it a temporary or permanent vocation? It could be that you won't marry — don't laugh! All 18-year-old girls are sure that they will marry some day but it doesn't always happen that way!! Nursing, if you decide to choose it, should bring out the best in you — that is one essential. That is what *it* should give *you*, that is what you have a right to expect from it, since this is what makes it possible for you to return service a hundredfold. The whole profession benefit from what is put into it.

A profession *is* its members — students like yourself, head nurses, directors of nursing, instructors, supervisors, staff nurses and later, perhaps, *your* pupils. Already there are many people who must appreciate their profession more because your attitude spurs them on to give of their best each day.

But independently of its members, the aim, the ideal, of the profession, the objective of all its effort, its study, its research is the care of the sick and the prevention of illness. The public will benefit from nursing only if every member gives of her best to it. That is a necessity. You must be as certain as possible that nursing is the profession that can develop your talents most fully. Do you feel that way about it?

Apart from this, you should know where nursing can take you in a material sense — salary and prestige must be considered. Fortunately, in our modern society the nurse is receiving increasingly better remuneration and recognition.

There is another point to consider now. In a school of nursing, most students live in residence. (This system has been much discussed and studied and is generally considered most satisfactory.) Without there being any real disparity in educational

Miss Zalloni is the educational coordinator at the school of nursing, Hôtel-Dieu de Saint-Jérôme, St. Jérôme, P.Q.

background, we still find differences between one person and another. This is a possible source of conflict. Jealousy and envy crop up and personalities clash. I know, my dear, that you won't be too happy with this living arrangement and unless you are careful you will make others miserable too. Think about it. The atmosphere in the school must be kept congenial.

Apart from this, do you know what you must study in a school of nursing? You do *not* learn everything at the patient's bedside! The course of study is heavy and the preclinical student quickly finds out that she can't put off until tomorrow what she should study today without getting into difficulty. She becomes jittery, works under pressure at the last minute before an exam — sometimes far into the night preceding it. Keep in mind that in your preclinical period, you will probably study harder than you did in your last year at school. You might as well accept the fact that the arithmetic text that you put away with such relief plus your physics and chemistry manuals must be used again. Put them into your trunk right away! Yes, dear, you will have to wrinkle your brow over ratios, percentages and decimal fractions again. Giving medications requires extreme accuracy and a patient's life can depend on your knowledge (or lack of it).

Are you still with me? Now we come to the patients. "Well, it's about time! This is what really interests me," you say. So you already love them without being acquainted with them. I know that your probationery studies will increase your natural concern for the ill. In your imagination caring for the sick can make a very pretty picture but — Mr. Brown is dirty; Mrs. Green has a difficult personality; Miss White is demanding and Mr. Smith's wife is tiresome. The period of adjustment to patients is sometimes a long one for the student nurse. Don't get discouraged too soon. If some of your illusions vanish, don't feel that you have fallen to a level of sights and tasks unworthy of you. This is the first step towards the firm ground of reality upon which you will be able to test your powers of endurance, demonstrate your adaptability, your strength of character, your broadness of mind, your sincerity of purpose. It is under circumstances where we seemingly demean ourselves that we attain to greater heights spiritually.

There are disillusionments of another kind also. You tend to look for perfection in your head nurses, teachers and graduate companions. But don't you realize that perfection is not of this world? The demands that you young people make on others! Some day when I have time I'll talk to you about each of these nurses who, in your eyes, should be models of the profession and whom you are so ready to criticize for the least shortcoming. If there is bad temper, habitual injustice or negligence shown then I would agree with your criticism but I want you to realize how much nurses in these positions contribute to your development — repeating advice over and over again, coming to your aid when you are bogged down in unforeseen difficulties, getting things straightened out with a patient after you have blundered. I particularly don't want you to forget the extent to which their patience, indulgence and tolerance is stretched on some occasions when (let's face it) they have to "put up with" you.

Let's talk about the school again. You may be tired, agreed, but there are lectures to attend and you have to be there in body as well as spirit. It is hard to be alert mentally when your body is tired and your feet hurt. Sometimes you will be tempted to drop everything. Boring lectures, compulsory study, meals that do not appeal to you, etc. Instinctively you will start to look questioningly at your suitcase. Your state of mind then can become grounds for trouble if your bitterness affects your friends.

Nevertheless even in the midst of your "blues," you should be grateful to the older nurses who had the same painful experiences before you and who, out of consideration for future students, made suggestions to competent authorities regarding the ways in which life in a school of nursing could be made pleasanter through adequate relaxation and interesting recreation. On days when things go wrong you will especially enjoy television, using the record player, tennis, skating and so forth. You will find a well-stocked

library for your pleasure to develop your understanding of subjects other than nursing. The modern nurse must be generally accomplished, must not devote herself exclusively to her own field. In addition to facilities for physical and mental relaxation, including a good health service that you should learn to use wisely, you will enjoy the atmosphere of the school which is so suited for student use, such as the quiet required. That is partly why modern schools of nursing try to have single rooms for their students.

I shall close now, my dear, hoping that I have given you a rather general but comparatively accurate idea of what awaits you in nursing as a career. I hope it may help you avoid possible delusions. After all this, do you still feel like joining our ranks? If so, come along. We are waiting to welcome you. You will find, as I have, that even if you must *give* much to your profession, you *receive* the deep, enduring and stimulating pleasure of a rich life.

Your affectionate aunt.

A Certified Orderly Training Program

DOROTHY DICK, M.A. *and* PETER R. CARRUTHERS, B.A.

ON NOVEMBER 7, 1958, the first class of 12 men to graduate from the orderly training program of the nursing department at the Winnipeg General Hospital received their diplomas as certified orderlies. This was a significant step forward in the education of these men to help them to fulfill more effectively their role as part of the nursing team.

Background of the Program

The need for this type of training had been felt by the nursing department for several years, but it had never been implemented. However, in the process of hospital reorganization, the program was given new emphasis both in the nursing and administrative departments. In the past, orderlies had been a separate department unto themselves, but for over a year now they have been a unit integrated into the department of nursing. As part of this transfer the men were assured that a training program for them would be forthcoming.

There were, in addition, several other factors that led to the adoption of the program. In the past, it was felt that the orderlies had not been functioning at the highest level of which they were capable. An improved standard of general work was greatly needed. It was also realized that the nursing staff required more assistance from these men in caring for the patients. In other words, if an orderly was to perform additional and responsible nursing duties, training was a necessity. This was in keeping with the philosophy that one must teach all levels of staff the practices and procedures of nursing care necessary to carry out and maintain good patient care in a modern hospital.

Objectives

To begin with it was necessary to determine exactly what functions were to be required of the orderlies. These were obtained partially from a review of duties set down by the former chief orderly. In addition to this an intensive job analysis was done by the personnel director. Finally, the experienced opinions of several senior members of our nursing staff helped to determine the responsibilities to be assumed by the orderly.

These functions were as follows:

Assisting with nursing care related to the comfort, cleanliness, and general well-being of patients; helping to meet the needs of patients for nourishment; assisting male patients in meeting their elimination needs; carrying out certain

Miss Dick is the clinical coordinator in charge of this program and Mr. Carruthers is administrative resident at the General Hospital, Winnipeg.

nursing procedures; caring for deceased male patients; assisting with the application of special equipment required for patients, e.g. orthopedic appliances and frames, fracture boards, etc., assisting in the maintenance of rooms and medical equipment in a clean and tidy condition; working with the nursing staff on the ward to maintain and develop the best care possible for the patients.

It can be seen that all these objectives were broad, and were relative to the duties of the registered nurse. The orderlies are directed and supervised by registered nurses who decide which patients are to receive orderly care.

Selection of Students

The initial premise was that the course would be offered to all the men presently on staff but that no one would be required to take it. Those who expressed interest filled out an application form. They were accepted in the order of application, with the exception that the men scheduled to be away on vacation were deferred to a later class.

In addition, the prospective trainee needed the recommendation of his head nurse. A working knowledge of the English language was also required since some men coud speak English but could not write it, but otherwise no educational prerequisites were set. For staffing reasons no two men from the same ward could be trained at the same time.

The initial group totalled 15 men, of whom 12 graduated. The group was limited to 15 members to allow for class participation, practice in the nursing arts laboratory, and supervision on the wards. Experience has shown that a slightly smaller class would be even more effective.

The Program Itself

The course extended over a period of three months and consisted of 30 hours of classroom work in the first seven weeks, followed by five weeks of practical work on the wards. Three classes per week, each one and one-half hours, were held. The course content was arranged in three blocks:

a. An introduction to nursing the patient in the hospital — 3 hours.

b. Basic nursing care of patients, particularly those needs which the orderly assists in meeting — 15 hours.

c. Nursing procedures carried out by the orderly with emphasis on those related to male patients — 12 hours.

Clinic rooms on the wards were used as classrooms with one bedside unit set up for practical demonstration purposes. The instructional staff consisted of two people, our clinical coordinator and an assistant nursing supervisor who is a young male registered nurse. The nursing arts staff from the school of nursing were not involved for it was felt that these two people were ample to handle the class. An instructor from our Power House staff gave the lecture on fire hazards and regulations.

Two examinations were held, one halfway through the course, and one at the end of the course. These tests were objective with no time limit set for completion. During the first class, tests were given orally to four people who were unable to write English. As a final criterion for certification, an evaluation of each man was made. A committee of four people reviewed each man's training. Their report was based on:

a. Class attendance — two missed classes meant that the course had to be repeated.

b. Examination results.

c. Supervision of procedures.

d. Reports from the head nurse and supervisor.

The Teaching Staff

The assistant supervisor taught one-half of the curriculum and in particular the practical application to floor work. He supervised the trainees on the wards and acted as assistant to the clinical coordinator. The clinical coordinator taught the theoretical material which made up the other 50 per cent of the program. In addition she planned and organized the course, and assisted in the evaluation of the participants at the conclusion of their training.

Graduation

At the conclusion of the course a graduation ceremony was held in the auditorium of the school of nursing. The hospital administrator presented

each graduate with a handsome leather folder containing his certificate as a permanent document. The ceremonies were attended by representatives of every hospital department.

Evaluation

The general reaction has been most favorable. The success of this initial venture has encouraged the continuation of the program. It is definitely serving the need for which it was designed. The nurses like it since it has resulted in better orderlies for their wards. In fact, the nurses themselves now want to send their orderlies to take the course. Both instructors commented that there was excellent student participation. The orderlies were eager to learn.

The effect upon the orderly group has been astonishing. It would be an understatement, indeed, to say that they liked the course. It gave them recognition, prestige, and a certificate as tangible evidence of accomplishment. Each one received a plastic name badge with the classification "Certified Orderly" on it. Morale has improved remarkably. The men take much greater care with their grooming. Working relations on the wards are much better with the certified orderlies now voluntarily offering to help the nurses. Non-productive time has decreased. It has stimulated the untrained orderly to apply for and take the course. And the effect of the pay increase of $20 per month, payable on completion of the course has been significant.

The Future

As a result of our experience with this training program we believe that every ward orderly who joins our staff will need and benefit from the program. There are many more orderlies in the hospital who are eligible to take the course. Our first concern was to train the men working on the wards. This meant that orderlies doing porters' work, e.g. transporting patients to x-ray, operating rooms, etc., were not eligible. Now however, if these men wish to take the course, they can transfer to ward work.

Perhaps the most encouraging note came from a recent meeting of the Greater Winnipeg Regional Hospital Council. At this meeting several other hospitals in the city expressed a definite interest in sending their orderlies to us for training. At the moment we are working towards this integration of other students with our own.

The program has proven valuable and has improved our situation immeasurably. Other hospitals that establish such programs may expect to receive similar benefits. For not only the hospital benefits, but more important, the patient receives added and improved care which the trained and competent orderly can give to him.

Living arrangements for the elderly should include:

Privacy, but not isolation.

Furnishings that provide a homelike atmosphere.

A measure of quietness, warmth and good lighting.

Proximity to a bathroom.

Unpolished floors, without scatter rugs.

Night lights in rooms and halls; a wall switch rather than a pull cord for the bathroom light.

A lock on the medicine cabinet.

A rubber mat for the bath tub and a non-skid mat on the bathroom floor.

A handrail above the bath tub.

A handrail on the staircase plus good lighting and firmly fixed stair treads.

— *Bulletin*, Ont. Dept. of Health

In Memoriam

(Continued from page 715)

became operating room supervisor of her home hospital and held this position until her death.

* * *

Mrs. Hazel Walsh, who graduated from Cook Hospital, Gisborne, New Zealand died in New Zealand on June 3, 1959. Mrs. Walsh had nursed in British Columbia for a number of years prior to returning home last February.

* * *

Ora Watts, who graduated in 1949 from the Brandon General Hospital died on March 11, 1959 after a long illness.

* * *

Marion Yonge, who graduated from Kootenay Lake General Hospital, Nelson, B.C., in 1925 died recently. She had been engaged in private nursing.

a new look at BANANAS

Some years ago there was a widely prevailing notion that bananas were indigestible. Today they are prescribed as one of the first solid foods fed to infants.

For the past few years many patients have had the idea, equally erroneous, that bananas are "fattening." The fact, of course, is that bananas—like fruits as a class—are relatively low in calories. There are only 88 calories in a medium banana, according to the Canadian Department of Agriculture.

And so another bugaboo is laid to rest.

There is no reason to omit bananas from reducing diets.

There are a wealth of reasons to include them:

- *A wide range of vitamins and minerals in good balance with calories.*
- *Calories provided both as simple sugars for quick energy and as less soluble carbohydrates for sustained vitality.*
- *High satiety value for appetite control.*
- *Pectins and carbohydrates to aid digestion.*
- *Extremely low fat content — less than 0.2 per cent.*
- *Sweet mellow flavor that rates high in patient acceptance.*

In addition, clinical experience has demonstrated the banana's regulatory effect on gastrointestinal function, and its value in the correction of both diarrhea and constipation.

A new look at bananas demonstrates their place in every reducing diet—and every normal or maintenance diet, too.

Bananas belong in the daily diet

CANADIAN BANANA COMPANY LTD.

Infiltrative Duct Carcinoma of Right Breast

DOROTHY C. JOHNSTON

Social Aspects

MRS. DAY was a quiet, pleasant, intelligent, middle-aged woman, who seemed to take great pride in her homemaking duties. She particularly enjoyed reading, crocheting and other types of handiwork. Her husband was employed by an automobile company and they had one married son. The family was enrolled in a hospitalization plan, and hence, the financial problems associated with Mrs. Day's hospitalization were minimized. Mrs. Day and her husband enjoyed social activity and took an active part in community affairs.

Medical History

Mrs. Day had had the usual childhood diseases such as measles, chicken pox, and mumps, but no serious illnesses. There was no family history of tuberculosis or diabetes. Several months ago she noticed a small swelling in her right breast which she discovered while bathing. Mrs. Day did not seek medical advice at this time. The lump slowly increased in size and became rather tender. There was no discharge of any kind from the nipple. Eventually, about three months after noticing the lump Mrs. Day visited her doctor because she was becoming alarmed. He advised her to come into the hospital for surgery without delay.

On examination she was found to have a small lump in the outer aspect of her right breast. There was an area of slight redness, measuring approximately 2 x 1 cm. and there was a degree of asymmetry of the two breasts. On deep palpation, a firm mass, about two and one-half inches in diameter could be felt. This mass seemed to be fixed, in relation to the skin, but moveable in relation to deep structures. No axillary lymph glands were palpable. Mrs. Day appeared rather pale; her blood pressure was 190/100. A slight rumbling systolic murmur could be heard when listening to the heart sounds.

Miss Johnston, who was a senior student at Hamilton General Hospital when this study was written, was awarded Honorable Mention in the recent Macmillan Award competition.

Laboratory Findings

The day before operation, several blood tests were performed to ensure that the patient was in suitable condition for surgery. Results were within normal limits.

A urine specimen was also examined and proved to be normal in all respects. This ruled out the possibility of renal or urinary tract disease which might make surgery hazardous. A specimen of blood was taken for typing and cross-matching.

Mrs. Day had a miniature chest x-ray at the time of admission. Her doctor also ordered a large x-ray of her chest to determine if there was any evidence of changes in the chest structures. The x-ray department reported that there was no evidence of any active disease including that of metastatic origin. Because of her abnormal heart sounds, an electrocardiogram was taken. It proved to be within normal limits.

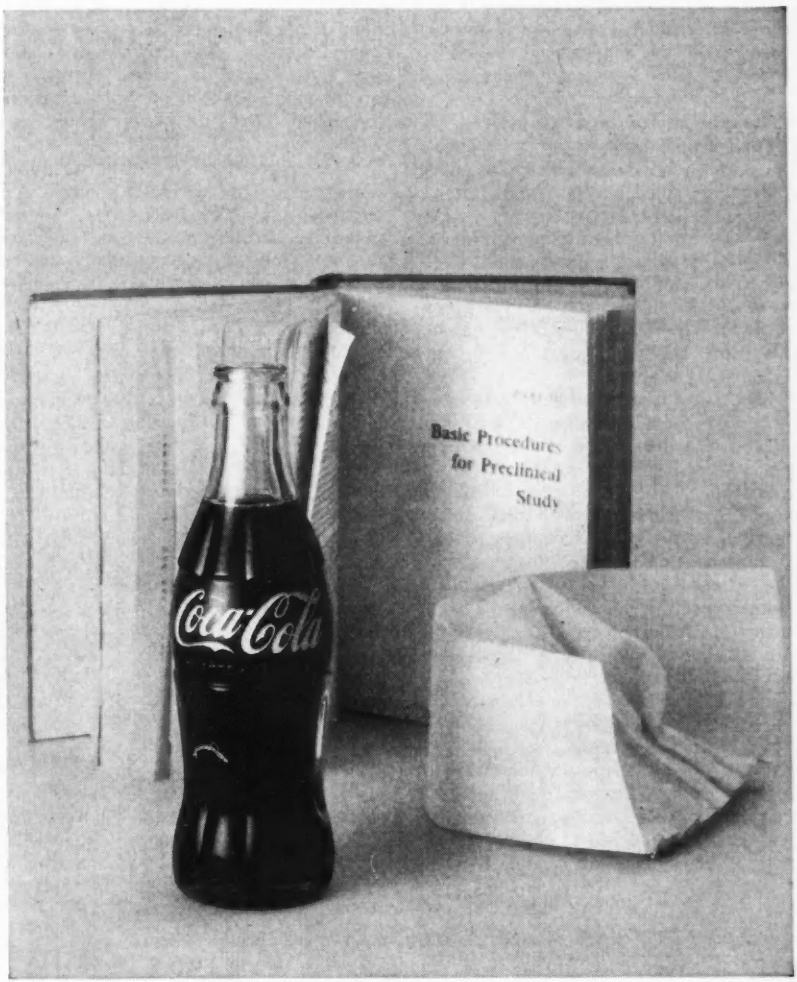
Clinical Features of the Condition

The breast is the most frequent site for the development of carcinoma in the female. It is so common that one author states that most tumors of the breast in women over 40 years of age are carcinomatous. Because this condition is quite painless in the early stages, many patients, unfortunately, do not present themselves for treatment until the cancer is already quite advanced.

Typical Signs and Symptoms

The symptoms are insidious. The patient finds a non-tender lump in the breast — usually in the upper, outer quadrant. As it grows it becomes attached to the chest wall or to the skin.

Pain seldom occurs until the very late stages. A dimpling or "orange peel" skin may be observed. Upon examination in the mirror, the patient may note asymmetry and an elevation of the



When too many tasks seem to crowd the unyielding hours, a welcome "pause that refreshes" with ice-cold Coca-Cola often puts things into manageable order.

affected breast. There may be bleeding from the nipple, as well as nipple retraction. If treatment is not obtained, the tumor invades surrounding tissues and extends to the lymph glands of the axilla. If untreated, death may occur in two or three years, due to metastases into the lungs, bone, brain or liver.

Preparation for Operation

Mental Preparation

Because the emotional factor is an important one, encouragement and reassurance are essential. Mrs. Day had not undergone surgery before. She was quite apprehensive about going to the operating room and having an anesthetic. She was naturally concerned also about the extent of her condition and whether or not it could be cured at all.

Her fears were partially alleviated by a visit from the surgeon who was to perform her operation the following day. He gave Mrs. Day some information about the operation that he would perform. He explained that it might be necessary to remove the entire breast in order to obtain a cure. No patient should go to the operating room expecting to have only a small incision with removal of the tumor and awaken to find that she has had a radical mastectomy.

The anesthetist also visited the patient the evening previous to her operation. He reassured her as much as possible through his explanation of the procedures he would follow. He also explained that she would probably receive a blood transfusion during or after her operation so that she would not be unduly alarmed when she awakened in the recovery room to find that she was being given blood.

The nursing staff attempted to reassure Mrs. Day at every opportunity. They explained what would be expected of her when she came back to the ward in relation to deep breathing, frequent change of position, and arm and leg exercises. She was made aware of the fact that she would have a large dressing on her wound and a drainage tube. If the patient is prepared for these things she is more willing and able to cooperate. A visit from her clergyman helped to reassure and prepare her for operation.

Physical Preparation

It should be our aim to send the patient to the operating room in the best physical condition possible, so that convalescence will not be delayed. Mrs. Day was encouraged to drink plenty of fluids the day before her operation to be sure that her body was well hydrated. A tap water enema was given on the evening before operation, to ensure that the lower bowel was empty.

The operative area was cleansed with green soap, carefully shaved, and cleansed again. The site prepared was extensive because of the possibility of the very long incision which must be made if a radical mastectomy is performed. The skin was prepared from the nipple line of the unaffected breast to the midline of the back on the affected side and from the clavicle on the affected side to the umbilicus. The right arm to the elbow, including the axilla, was also prepared. After skin shaving the patient had a warm bath to ensure cleanliness of the entire body. Mrs. Day was given chloral hydrate gr. 7½, a hypnotic, and slept well.

One hour preoperatively Mrs. Day was given seconal gr. 1½, which made her very drowsy. Three-quarters of an hour preoperatively she was given a subcutaneous injection of morphine sulphate gr. ⅛, and atropine sulphate gr. 1/150.

Operation Record

The patient was anesthetized with sodium pentothal (given intravenously) followed by nitrous oxide and oxygen (given by inhalation). Anectine, a muscle relaxant, was given intravenously.

A right radical mastectomy was done, using a vertical incision, circling the breast, and extending to about 5 cm. on each side of the tumor. Skin flaps were raised, pectoralis major and minor muscles were removed along with the breast. Frozen section was not done. Flaps were closed with moderate tension and two catheters were placed through a stab wound in the axilla.

Mrs. Day was unconscious when taken to the recovery room, with a transfusion of whole blood running. Oxygen was given by nasal catheter

Effective, Convenient Evacuations Without castor oil or enemas

Numerous clinical trials have been published wherein DULCOLAX has proved completely capable of replacing castor oil and enemas for radiological preparation. As effective as it is in this instance so is DULCOLAX equally effective for routine hospital use on all wards.

Wherever enemas are used they may be replaced by the use of this innocuous, self-eliminating evacuant. Use of DULCOLAX will result in great time-saving for hospital personnel through its ease of administration and through patient cooperation and acceptance.

DULCOLAX may be used safely, effectively and routinely wherever castor oil, enemas or any form of laxative is indicated in hospital use. There have been no specific contra-indications to DULCOLAX reported in the literature.

REFERENCES

Fraser, R. G., Journal of Canadian Ass. of Rad., Dec. 1958; Clark, A. N. G., British Medical Journal, 2:866, Oct. 12, 1957; Raymond, O., Nogrady, B., Vézina, J. A., Scientific Exhibit presented at the Twenty-Second Annual Meeting of the Canadian Ass. of Rad., Saskatoon, Sask., Jan. 1959.

AVERAGE DOSAGE:

Two tablets taken at bedtime for action the following morning, or taken before breakfast for action in one to six hours. One suppository is usually effective in from 15 minutes to one hour.

SUPPLIED:

5 mg. enteric-coated tablets, bottles of 30 and 100.

10 mg. suppositories, boxes of 6 and 50.

Under license from C. H. Boehringer Sohn, Ingelheim.

and her dressing was checked for excessive bleeding. Her blood pressure was checked periodically. When 1000 cc. of whole blood had been absorbed, glucose solution was administered.

The patient regained consciousness within an hour and became rather restless. Demerol was given and she was returned to her ward.

Postoperative Nursing Care

On her return to the ward, Mrs. Day's color was good, her pulse and respirations normal. The drains were connected with rubber tubing to drainage bottles and Stedman pumps at the bedside in order to provide continuous suction. There was moderate sanguinous drainage. It was important to check frequently for possible oozing from the wound, especially under the axilla and the area on which the patient was lying. She received Demerol 75 mg. q. 4 h. to relieve the pain and allow her to cooperate more readily when she was encouraged to turn and take deep breaths. Deep breathing is necessary to prevent pulmonary complication. Sedation should be such that it does not depress respiration and the dressing must not be so tight that it restricts lung expansion.

Mrs. Day was placed in semi-Fowler's position and pillows arranged so that her arm was elevated. This elevation helped to prevent lymphedema. The position of her arm was changed frequently however to prevent stiffness and to preserve muscle tone.

Careful measurement of intake and output was important. Mrs. Day continued on intravenous therapy for the remainder of her operation day. Next day she received clear fluids and gradually, as she could tolerate it, she was given a full fluid diet followed by a soft and then a regular diet.

Mrs. Day had a small amount of sanguinous drainage from the catheters inserted into the wound. The amount of drainage was noted at the end of each eight-hour period, a small piece of tape being put on the drainage bottle to mark the level. On her third postoperative day, suction was applied to the drainage tubes every other hour and on the fourth day they were removed and her dressing was done by the doctor.

On her third postoperative day the patient suffered some discomfort from flatulent abdominal distention. A rectal tube gave considerable relief. The following day a small tap water enema was given which relieved the abdominal distention very effectively.

The day after surgery, the arm on the affected side received passive exercise by the nurse. The arm was put through a full range of movement — flexion, extension, adduction, abduction. On the second day the patient was allowed out of bed for about 10 minutes. The amount of passive exercise was increased and the patient was encouraged to do more for herself. Failure to encourage exercises may prolong the disuse of the arm and promote the development of a contracture. One of the best exercises for this patient was to comb her hair. Mrs. Day was encouraged to practise this on the third day. She required a good deal of encouragement but since she understood the need for exercise, she was most willing to cooperate.

Teaching

When the wound had healed sufficiently the surgeon gave instructions regarding the use of a prosthesis. No prosthetic device should be worn until the doctor authorizes it. Mrs. Day was happy to hear that such an appliance was available and her fear of disfigurement was greatly relieved. Since follow-up care is most important, Mrs. Day was urged to see her doctor regularly. Any recurrence of cancer could then be detected early.

As nurses, we are interested in the prevention and early treatment of disease. We should point out the importance of frequent self-examination of the breasts and of reporting any abnormalities immediately to a doctor.

Mrs. Day's recovery was uncomplicated. Her sutures were removed on the seventh postoperative day, and her incision appeared clean and dry. When she was discharged on her 14th postoperative day, she was able to put her arm through a full range of movement, understood the importance of her follow-up care, and was happy to know that she had made a speedy and complete recovery.

* * *

A jest breaks no bones.

— SAMUEL JOHNSON

An Improved Armboard

Don't Bend an Elbow

MARY CROKEN

AS ALL HOSPITAL PERSONNEL KNOW, we have various small problems arising daily that need a bit of ingenuity to solve. One such problem is trying to immobilize a patient's elbow when the median cubital vein is used as the site of an intravenous infusion.

One of the former supervisors of our recovery room, Miss Mary Agar, had such ingenuity. While looking at an empty adhesive carton she had began to think that it could be used as an armboard. At the present time this is the type of restraint that we use.

We make it by cutting off both ends of a container and splitting it lengthwise. Then we remove an oval section measuring 2¾ inches at its greatest width from the center of the container. All cut surfaces are covered with 1 inch adhesive tape. The oval opening allows observation of the site of the needle and the surrounding area. The patient cannot rotate his elbow with this type of restraint in place, as he can with the usual one.

Another idea we have adopted is for an economical, small type of support to be used when veins in the hand and about the wrist are being used as sites of intravenous infusion. These "boards" are made as follows: Take three double sheets of magazine-size newspaper. Fold lengthwise in three sections, flatten, fold in half and cover with paper toweling. This makes an armboard measuring 2½ inches by 8 inches and 1 inch thick. It is extremely light in weight and comfortable for the patient.

Both of these armboards are made from waste material to be found in all hospitals, and the time required for preparation is minimal.

Miss Croken, a graduate of Charlottetown Hospital, P.E.I., is the head nurse in the Recovery Room, Toronto East General Hospital.

A Paraphrase of Paul's Thirteenth Chapter of First Corinthians for Nurses

MOIR A. J. WATERS, B.A., B.D.

THOUGH I TREAD THE WARDS of the hospital, and serve in the operating room, and have not true love, I am just acting out a part.

And though I have a gift for nursing, and understand all the theories of my profession, and have passed all my examinations with high honors, and though I subscribe to the Florence Nightingale pledge, and have not love, I am not worthy of the name.

And though I give all my energies to the ministry of healing, so that I am physically exhausted at the end of the day, and have not love, I am not a real nurse.

A true nurse is always patient, always kindly; is never envious of another nurse's success; does not put on airs; is always humble and never proud.

A true nurse always behaves as a nurse should. She does not insist on her "rights." She is not irritable when things go wrong, nor resentful when corrected in a fault.

A nurse is never glad when another's mistake comes to light, but rather rejoices in the success of her fellow nurses.

A true nurse bears the suffering of her patient on her own heart; believes in the healing power of the Great Physician; brings a spirit of cheerfulness and hope into the sickroom, and patiently carries on her ministry of healing.

True love never fails. As for operating room techniques — they shall be outmoded with greater knowledge; as for books on materia medica — they shall be superseded by new editions; as for the disciplines of the undergraduate days — they shall be a thing of the past.

For medical and nursing knowledge is ever advancing. Now we know only in part. But with added knowledge from dedicated research and growing experience, even better days will open up for mankind, and partial knowledge will become fuller knowledge.

When I was a child, I spoke as a child, I thought as a child, I acted as a child; but now that I am a nurse I must be mature in my outlook and my reactions, and put away any childish attitudes and actions.

For up till now medical knowledge is incomplete, but every year new knowledge is added.

And now abide these three graces that every nurse should possess; faith, hope and love, and the greatest of these is love.

The diamond cannot be polished without friction, nor man perfected without trials.

— *Chinese Proverb*

Book Reviews

Nutrition in Health and Disease by Lenna F. Cooper, B.S., M.A., M.H.E., Sc.D.; Edith M. Barber, B.S., M.S.; Helen S. Mitchell, A.B., Ph.D. and Henderika J. Rynbergen, B.S., M.S. 734 pages. J. B. Lippincott Company, 4865 Western Ave., Montreal. 13th ed. 1958. Price $6.00.

Reviewed by Miss G. Quine, Consultant Dietitian, Dept. of Social Welfare, Government of Saskatchewan.

With the advances in nutrition and diet therapy in the last few years, the former edition of this book was becoming quite obsolete. It is most encouraging to see the new edition maintained at its high standard and brought up to date.

Part One gives a very complete picture of the principles of nutrition. Caloric requirements are now more realistic in consideration of our modern decreased activity. Food requirements for all age groups are well covered. One disadvantage for Canadians using books produced in the United States is the use of an American dietary allowance which is quite different from the Canadian but an explanation of the difference

is given and the Canadian standards can be easily obtained from the provincial Departments of Health. The chapter on "Food and Public Health" explains new methods of food preservation.

Part Two deals with diet and disease. The first chapter contains very valuable material on the psychology of feeding ill people. This should prove a worth while study for any nurse or dietitian. In the chapter on diabetes mellitus the new oral therapeutic agents are mentioned and explained. The gluten-free diet for sprue and celiac disease is well covered. Another of the newer diets discussed is the low fat-low cholesterol diet for atherosclerosis. It is interesting to see a few paragraphs on feeding the mentally ill.

Of greatest value in the section on Food Selection and Preparation, are the recipes for therapeutic diets. The tabular material is adequate and well set up. The bibliography is up-to-date and complete, with general references divided into professional and lay categories.

This book continues to be an excellent text for the use of student nurses as well as being an invaluable source of reference material for college students in dietetic or medical fields.

Psychology for Nurses by Sr. M. Maurice Sheehy, R.S.M., R.N., Ph.D. and Francis L. Harmon, Ph.D. 246 pages. The Bruce Publishing Company, 400 North Broadway, Milwaukee 1, Wisconsin. 1958. Price $3.50.

Reviewed by Sr. M. Loretto, Administrator, St. Vincent's Hospital, Vancouver.

For the psychology teacher who has been looking for a text for use by student nurses in the diploma course, this book will be most welcome. Few student nurses have any background in basic psychology. The textbooks which are of practical value to nurses are not numerous.

The fundamental principles for a course in psychology on an elementary level are well covered. Since the book is intended for a specific group of readers the authors have successfully incorporated practical applications drawn from the day-to-day experiences of nurses. This enhances the meaningfulness of the book and increases its appeal for youthful readers.

At the end of each chapter there is a list of references which are very useful as supplementary reading. These references are designed to give the student a more comprehensive understanding of material than is possible in the text alone. The added glossary is a useful tool in building up the vocabulary of the student in this field.

This text would be valuable not only in developing a better understanding of the patient but in assisting the student to acquire an understanding of her own personal qualities as an aid to self-evaluation.

Students will welcome this book for its academic content as well as its usefulness in daily living. It is highly recommended not only as a text for students but also as an outline guide for teachers of psychology.

Family Guide to Teenage Health by Edward T. Wilkes, M.D. 244 pages. The

Ronald Press Company, 15 East 26th Street, New York 10, N.Y. 1958. Price $4.00.

Reviewed by Muriel E. Small, Nursing Supervisor, Health Unit No. 2, Vancouver.

A great deal of attention has been focused on the adolescent during the past few years. One of the less happy results of this has been to almost set the teenager apart, so that the ordinary adult is developing a tendency to regard him as a new and different being, instead of a normal person passing through a period of marked growth and development. One notes almost a dread of the adolescent period on the part of some parents. They express helplessness in understanding and coping with this "different" child.

This book seeks to be a medically sound guide to parents, teachers, social workers and others dealing with the adolescent, as well as to teenagers themselves. It is comparable to the well-known guides to infant and childhood years. It deals in a very readable and yet authoritatively medical way with the physical and emotional health of the child from 12 to 20. It gives sound information on the growth patterns of this age group, and should, as the author hoped, "allay many worries about normal and abnormal growth, and other problems that mean so much to the adolescent boy or girl."

In the section on general health there is practical advice on such things as hygiene, nutrition, underweight, overweight and menstruation. A section of the book deals with the minor ailments and major diseases of these years. It should help parents and others to understand what they can deal with, and when they should seek medical help.

In the discussion of the adolescent's unstable emotional life — his drives and urges, his struggle for emancipation — the normal and the abnormal are well differentiated. There is emphasis on the parental role of understanding guidance rather than sentimental overprotection or removal of all restraints.

This book would undoubtedly be helpful to the people for whom the author was writing — parents, teachers, counsellors — and also, I think, to public health nurses who deal with adolescents in the school situation, or try to help parents promote and foster their children's physical and emotional health during this crucial period.

The Nursing Care of Children by Inez

L. Armstrong, R.N., M.S. and Jane J. Browder, R.N., M.N. 606 pages. The Ryerson Press, 299 Queen Street West, Toronto. 1958. Price $6.50.

Reviewed by Mrs. Evelyn L. Furlong, Affiliate Instructor, The Children's Hospital, Halifax.

The objective of this book is to assist the pediatric instructor either in a children's hospital or in the pediatric unit of a general hospital, in the education of the professional student nurse during her pediatric affiliation.

It is my opinion that anyone engaged in the care of children, whether instructor, graduate nurse or student nurse, will benefit from this book. It aids the instructor by helping her to understand the problems which the student brings with her when she enters a pediatric affiliation. It gives suggestions which may be helpful in overcoming these problems. Reading this text will assist the ward graduate in understanding the problems facing the affiliating student. It will help the affiliating student to observe the contrasts between adult and child nursing. The difficulties that the authors have mentioned as being encountered by students affiliating in pediatrics are the same that I have observed with my affiliating students.

The book is written in uncomplicated and interesting language. The principles governing different aspects of pediatric nursing are clearly and simply stated. Illustrations, although not too numerous, are easily understood. The questions for student review and those for student-teacher discussion at the end of each chapter are extremely helpful in increasing the interest of a pediatric course of study.

This is one of the few pediatric books that includes the developmental phases, tasks and achievements of the well child as well as dealing with specific diseases of childhood. The chapter on the signs and symptoms exhibited by the ill child is of especial interest. This is one area in which affiliating students appear to be lacking in judgment and experience. The chapter on fluid balance, although brief, is extremely well written and easily understood. The form suggested for use in obtaining information from parents, is very practical.

I feel that this book gives an excellent outline of material for the pediatric instructor and that it has great value as a review text in pediatrics for students.

Employment Opportunities

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U.S.A. & Foreign — *$7.50 for 3 lines or less; $1.50 for each additional line.*

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ALBERTA

Supervisors $3,840 - $4,440 per annum. **General Duty Nurses** $3,480 - $4,080 per annum. 40-hr. work wk., Civil Service holiday, sick leave & pension program. Apply to: Baker Memorial Sanatorium, Calgary, Alberta.

Matron-Superintendent for 30-bed fully accredited hospital located on Highway 13 between Edmonton & Saskatoon. Separate nurses' home, nursing staff on 40-hr. wk., total staff of 27 employees, including a stenographer-medical records clerk, X-Ray & Lab. technician. Salary commensurate with experience & qualifications. Apply stating qualifications, experience, age & salary expected to: Mr. B. L. Baldridge, Secretary, Municipal Hospital Board, Provost, Alberta.

Registered Nurses for 31-bed hospital, 40-hr. wk. Increments for service & experience. Starting salary $250 per mo., maintenance $30 per mo. in separate nurses' residence, 1-mo. vacation after 1-yr. service. Apply: Matron, Municipal Hospital, Eckville, Alberta.

Registered Nurses (3) for 15-bed hospital. Starting salary $265 with increments & benefits as per A.A.R.N. Nurses' residence connected with hospital. Apply to: Matron, Municipal Hospital, Smoky Lake, Alberta.

Registered Nurse for 35-bed busy General Hospital offering a variety of experience. 40-hr. wk., rotating periods of duty. Gross salary $270 per mo. $35 deducted for maintenance & laundry. 4 semi-annual increments of $5.00, 3-wk. vacation, 10 statutory holidays, 12 days sick leave yearly, cumulative to 30 days. Accommodation in hospital wing — single & double rooms. Viking is 90-mi. southeast of Edmonton, on main highway & railway with daily bus & train service. Apply to Matron-Supt., Municipal Hospital, Viking, Alberta.

Registered Nurses for General Duty Staff. Salary $275 per mo. 4 semi-annual increments. Board & room $30 per mo. Paid overtime, 42-hr. wk. 1-mo. paid vacation, sick leave 1½-day per mo. accumulative to 90-days. Apply stating age & qualifications, to: Matron, Municipal Hospital, Mayerthorpe, Alberta.

Registered Nurses for General Duty 52-bed hospital in Central Alberta, on main highway close to Calgary, Edmonton & Banff. Salary $250 less $30 for full maintenance, with six (6) $5.00 increments every 6-mo., 1-mo. vacation after 1-yr. service. Apply to: Mrs. E. Harvie, Matron, Municipal Hospital, Lacombe, Alberta.

General Duty Nurses (Immediately for summer relief & steady employment) new 54-bed hospital. Gross salary $255 per mo. with annual increase, less $26 maintenance, 1-mo. vacation after 1-yr. service. Voluntary pension plan & compulsory medical & hospitalization plan in operation. Apply stating references & experience, if any, to: Matron, Municipal Hospital, Vermilion, Alberta.

General Duty Graduate Nurses for active 76-bed hospital, near Calgary & Edmonton. $260 gross salary for Alberta registered, $250 gross salary non-registered in Alberta. Excellent personnel policies & working conditions. Apply: Matron, Municipal Hospital, Brooks, Alberta.

General Staff Nurses (immediately) for new modern hospital of 243-beds, 37-bassinettes. School of nursing has a present enrollment of 58 students. Temporary residence available in new nurses' home. 40-hr. wk. with liberal personnel policies. Apply to: Director of Nursing, Municipal Hospital, Medicine Hat, Alberta.

Graduate Nurses (2) for small country hospital in northern Alberta (40-mi. paved road to next city). Starting salary for R.N., $265; for Gr.N., $250 less $30 room & board. Good working conditions. Foreign nurses are given opportunity to register in Alberta after 1-yr. service. Newly decorated residence, single rooms. Apply: Matron, Hythe Hospital, Hythe, Alberta.

Graduate Nurses for 53-bed active hospital. Salary $265 per mo. 40-hr. wk. statutory holidays, sick leave benefits. $35 per mo. room & board. Apply: Sister Superior, Sacred Heart Hospital, McLennan, Alberta.

Graduate Nurses for 56-bed hospital. Pleasant working conditions. Apply to: Mrs. A. Kerby, R.N., Superintendent, Municipal Hospital, Stettler, Alberta.

Graduate Nurses for General Duty in new 30-bed hospital 90-mi. from Calgary on Trans Canada Highway. 44-hr. wk., generous personnel policies. For particulars apply to: The Matron, Municipal Hospital, Bassano, Alberta.

Operating Room Graduate Nurse (Duties to commence September 1, 1959) 76-bed General Hospital near Calgary & Banff. Gross starting salary $270 per mo. if registered in Alberta. Excellent personnel policies. Apply: Matron, Municipal Hospital, Brooks, Alberta.

Public Health Nurses $3,600 - $4,500 depending on experience. 5-day wk., car provided, medical & other benefits. Suit Catholic French-speaking nurse. Apply: Dr. J. B. Sherman, Health Unit, Peace River, Alberta.

Nurses (2) immediately for 20-bed hospital, 40-hr. wk. Wages $285 plus annual raises; 4-wk. vacation after each year's service. Living in quarters available. Apply to Matron, Coronation Municipal Hospital District No. 39, Coronation, Alberta.

BRITISH COLUMBIA

Nursing Supervisor (B.C. Registered) for Community owned 18-bed hospital, with new 26-bed hospital under construction. Starting salary $325 per mo. Full maintenance $48 per mo., in new modern nurses' residence, Scenic location in Rocky Mountains west of Calgary, Alberta on Trans Canada Highway. For full particulars write: C. F. Collins, Secretary, General Hospital, Golden, British Columbia.

Registered General Duty Nurse for 30-bed hospital. Starting salary $270 per mo. with $10 yearly increment. Board & room $40, 1½ day sick leave per mo. 40-hr. wk. 11 statutory holidays & 28 days vacation after 1-yr. service. Comfortable nurses' residence next door to hospital. Rotating shifts. Please apply to: The Matron, Community Hospital, Grand Forks, British Columbia.

Laboratory Technician (1) X-Ray Technician (1) fully qualified; **Registered Nurses (3)** for 30-bed hospital in Central B.C. on the Jasper Prince Rupert Highway, 70-mi. from Prince George. Salary for each of the above positions $290 per mo., 10 legal days with pay per year; 1½-days sick leave per mo., 28-days vacation after 1-yr. Laundering of uniforms by hospital; modern nurses' residence $50 per mo. Also **Certified Practical Nurses (3)** salary $190 per mo., 1½-days sick leave per mo. 10 legal days with pay per year; 2-wk. vacation after 1-year. Kindly apply giving qualifications & references to: Sister Superior. St. John Hospital, Vanderhoof, British Columbia

Head Nurses for Operating Room: 42-bed pediatric unit in 434-bed hospital with nurses' training school. Postgraduate or equivalent experience required, B.C. registration required, 40-hr. wk., statutory holidays, 28-days annual vacation. Credit given for past experience & postgraduate preparation. Salary $295-$354. Apply: Director of Nursing, Royal Columbian Hospital, New Westminster, British Columbia.

General Duty Nurses for small active hospital. Salary $250 for unregistered. $260 registered with yearly increments. Nurses' home available. For further particulars write, The Administrator, Lady Minto Hospital, Ashcroft, British Columbia.

General Duty Nurses for 110-bed General Hospital located in British Columbia's beautiful Northwest. Salary $283 per mo. with $10 increments for 3 years. Modern residence facilities available. For complete information apply to: Director of Nursing, General Hospital, Prince Rupert, British Columbia.

General Duty Nurse for well-equipped 80-bed General Hospital. Initial salary $270, maintenance $47.50; 40-hr. 5-day wk. 4-wk. vacation with pay. Apply: Sacred Heart Hospital, Smithers, British Columbia.

General Duty Nurses for modern 154-bed General Hospital. Generous personnel policies, nurses' residence. Apply: Director of Nursing, Trail-Tadanac Hospital, Trail, British Columbia.

General Duty Nurses (3) for 18-bed hospital in the beautiful Arrow Lakes District. Accommodation is available at the hospital at nominal rate. Reply giving details of experience to: Administrator, Arrow Lakes Hospital, Nakusp, British Columbia.

General Duty Nurses — Operating Room Nurses with postgraduate course or equivalent required for new 147-bed General Hospital. Personnel policies in accordance with B.C.R.N.A. Apply: Director of Nursing, General Hospital, Chilliwack, British Columbia.

General Duty & Operating Room Nurses for 434-bed hospital with training school; 40-hr. wk., statutory holidays. Salary $280-$336. Credit for past experience & postgraduate preparation; annual increments; cumulative sick leave; 28-days annual vacation. B.C. registration required. Apply: Director of Nursing, Royal Columbian Hospital, New Westminster, British Columbia.

Graduate Nurses for 37-bed hospital, salary $250 per mo. with annual increments — 28-dy. annual vacation, cumulative sick leave. $50 monthly board, lodging, laundry. New 50-bed hospital to be erected 1959. Apply: Administrator, Terrace & District Hospital, Box 1297, Terrace, British Columbia.

Graduate Nurses for 70-bed General Hospital. Salary $260-$280; 5-day wk., 28 days vacation plus 10 statutory holidays, after 1 yr. Apply: Matron, St. George's Hospital, Alert Bay, British Columbia.

Graduate Nurses: for new 63-bed hospital, 30 miles from Vancouver in the Fraser Valley. For salary rates & personnel policies, apply: Director of Nursing, Maple Ridge Hospital, Haney, British Columbia.

Registered Nurses for 31-bed hospital, 40-hr. wk., salary $262, increments $5.00 semi-annually. Single room accommodation in nurses' home, $11 per mo., full board $33 or single meals 55¢ each. Steamship fare from Vancouver refunded after 6-mo. For further information & copy of personnel policies, write to the: Administrator, General Hospital, Box 640. Ocean Falls, British Columbia.

MANITOBA

Matron for 18-bed hospital, 70-mi. from Winnipeg. Daily bus service. Salary $350 per mo. For personnel policies write or phone Vita No. 1, The Governing Board, Vita Hospital, District No. 28, Vita, Manitoba.

General Duty Nurses for R.W. Large Memorial Hospital of the United Church of Canada, at Bella Bella, B.C. 300-mi. north of Vancouver on the B.C. coast. Salary $260 per mo., less $40 for board, room & laundry of uniforms. 2 annual increments of $5.00 per mo., sick time — 1½ day per mo., cumulative, 1-mo. annual holiday, plus 10 day in lieu of statutory holidays. Transportation to Bella Bella refunded after 1-yr. Apply to: Matron, Bella Bella, British Columbia.

Registered Nurse for 10-bed hospital. Highest salaries paid. Good working conditions. For detailed information as to salaries & other benefits apply to: The Secretary-Treasurer, Box 235, Fisher Branch, Manitoba.

Registered Nurses (2) as soon as possible for 16-bed hospital. Salary $280 per mo. gross, $40 per mo. deducted for board & room. 40-hr. wk. 3-wk. vacation with pay after 1 full year employment, 4-wk. after 2 full years. Sick leave one day for each full month of employment plus 1 day for each full 6-mo. employment cumulative to 30 days. Living quarters in hospital. Apply to A. C. Laughlin, Secretary, Wilson Memorial Hospital, Melita, Manitoba.

Registered Nurses (2) for 20-bed hospital. Salary $270 full maintenance provided for $35 per mo. T.V. For further information phone or write: Miss A. Knievel, Medical Nursing Unit, Rossburn, Manitoba.

Registered Nurses (2) Licensed Practical Nurse (1) for General Duty. Salary $300 & $190 respectively, less $30 maintenance. 40-hr. wk., 3-wk. vacation after 1-yr. ½ M.H.S.P. paid. Laundry free. For further information refer to: Miss Margaret Wilson, Matron, Siglunes Medical Nursing Unit, Ashern, Manitoba.

Registered Nurse (for general floor duty) Salary $290 per mo. less $25 for full maintenance, yearly increments, 44-hr. wk. For further information apply to: John Hiscock, Secretary-Treasurer, Baldur Medical Nursing Unit, Baldur, Manitoba.

Nurse (Immediately) for 60-bed hospital 40-hr. wk., starting salary $275. Apply: Sister Superior, Ste. Rose Hospital, Ste. Rose du Lac, Manitoba.

NEW BRUNSWICK

Head Nurses & General Staff Nurses for new 26-bed psychiatric division opening July 1, 1959. Apply to: Director of Nursing, Saint John General Hospital, Saint John, New Brunswick.

NEWFOUNDLAND

Registered Nurses (4) Operating Room Nurse (1) for 120-bed General Hospital. Salary on Newfoundland Government scale plus $150 bonus end each 6-mo. service, one (1) way transportation paid, customary vacation with pay after 12-mo. service, plus all statutory holidays. Interested persons apply to: Dr. J. M. Olds, Superintendent, Notre Dame Memorial Hospital, Twillingate, Newfoundland.

NOVA SCOTIA

Registered Nurses (2) for floor duty, **Nurses Aide** (2) Immediately. Apply to: Western Kings Memorial Hospital, Berwick, Nova Scotia.

General Duty Nurses for modern 35-bed hospital situated on beautiful South Shore. Good personnel policies. Excellent living quarters. Apply Superintendent, Fishermen's Memorial Hospital, Lunenburg, Nova Scotia.

General Staff Nurses for 400-bed Medical & Surgical Sanatorium, fully approved student affiliation & postgraduate program. Full maintenance. Recreational facilities. Vacation with pay. Sick benefits after 1 yr. Blue Cross coverage. Attractive salary; 40-hr. wk. For further particulars apply Supt. of Nurses, Nova Scotia Sanatorium, Kentville, N.S.

ONTARIO

Assistant Director of Public Health Nursing (Immediately) duties include staff education, supervision & teaching responsibilities. Existing salary range $4,410-$5,130, with annual increments $180. A degree or certificate in Administration in Public Health Nursing & experience in an official agency are essential. Good personnel policies, 5-day wk., 2-wk. vacation, with 3-wk. after 5-yr., superannuation, Ontario Hospital Insurance, Blue Cross & P.S.I. benefits. For further information please apply to: Director of Public Health Nursing, City of Ottawa Health Department, City Hall, 111 Sussex Drive, Ottawa, Ontario.

Lady Superintendent & Administrator for small well equipped General Hospital in a community of 3,000 people & serves a fairly large rural area; situated close to Ottawa, there is a good rail & road communication with the Capital & other communities in the Ottawa valley. Applicants are requested to provide reference with a resume of past experience & salary expected. Apply: Secretary-Treasurer, The Rosamond Memorial Hospital, Almonte, Ontario.

Medical-Surgical Clinical Instructors, apply: Director of Nursing, Belleville General Hospital, Belleville, Ontario.

Registered Nurses for 50-bed Hospital, Obstetrical & General Duty. Rotating shifts, 40-hr. wk. Apply: Director of Nursing, Ajax & Pickering General Hospital, Ajax, Ontario.

Registered Nurses (2) for small well equipped hospital, 30 miles from Ottawa. Liberal salary. Apply: Superintendent, The Rosamond Memorial Hospital, Almonte, Ontario.

Registered Nurses (in Canada's vacation land) for 65-bed Public General Hospital with liberal personnel policies, 40-hr. wk, above average salaries, in friendly small town, offers stimulating well rounded experience. Apply to: Director of Nursing, Lady Minto Hospital, Chapleau, Ontario.

NURSING WITH INDIAN AND NORTHERN HEALTH SERVICES

OPPORTUNITIES

REGISTERED HOSPITAL NURSES, PUBLIC HEALTH NURSES, AND CERTIFIED AUXILIARY NURSES

for Hospital Positions and Public Health Positions in Outpost Nursing Stations, Health Centres and Field Positions in the Provinces, Eastern Arctic Northwest Territories and the Yukon Territory.

SALARIES

(1) Public Health Nursing Supervisors: up to $5,220 depending upon qualifications and location.

(2) Directors of Nursing in Hospitals: up to $4,950 depending upon qualifications and location.

(3) Public Health Staff Nurses: up to $3,780 per year depending upon qualifications and location.

(4) Hospital Staff Nurses: up to $3,540 per year depending upon qualifications and location.

(5) Certified Nursing Assistants or Licensed Practical Nurses: up to $200 per month depending upon qualifications and location.

- Room, Board and Laundry in residence at reasonable rates. Statutory holidays. Three weeks' annual leave with pay. Generous sick leave credits. Hospital-Medical and superannuation plans available.
- Special pay and leave allowances for those posted to isolated areas.

For interesting, challenging, satisfying work apply to — Indian and Northern Health Services at one of the following addresses:

(1) Regional Superintendent, 4824 Fraser Street, Vancouver, B.C.

(2) Regional Superintendent, 11412-128th Street, Edmonton, Alberta.

(3) Regional Superintendent, 735 Motherwell Building, Regina, Saskatchewan.

(4) Regional Superintendent, 803-9 Confederation Life Building, 457 Main Street, Winnipeg, Manitoba.

(5) Regional Superintendent, 4th Floor, Booth Building, 165 Sparks Street, Ottawa, Ontario.

(6) Zone Supervisor of Nursing, Box 493, North Bay, Ontario.

(7) Zone Superintendent of Indian Health Services, P.O. Box 430, Upper Town, 3 Buade Street, Quebec 4, P.Q.

(or) Chief, Personnel Division,

Department of National Health and Welfare, Ottawa, Ontario.

Registered Nurse (required September 1959) living in accommodation, pension plan, medical, hospitalization benefits. For application forms & further information, contact: Superintendent, Essex County Home for Senior Citizens, Leamington, Ontario.

Registered Nurses (Several) for immediate & future vacancies in modern 42-bed hospital. Starting salary: $265 per mo. plus shift allowance. 40-hr. wk. 4 wk. vacation after 1 yr. Apply: Superintendent of Nurses, New Liskeard & District Hospital, New Liskeard, Ontario.

Registered Nurses (Toronto Area) for 30-bed hospital for chronic illnesses. Salary $12 per day; 5-day wk.; 3-wk. vacation per year. Apply: L. Mackie, Director of Nursing, The Villa Private Hospital, Box 490, Thornhill, Ontario.

Registered Nurses & Certified Nursing Assistants for General Duty in all services. Salary commensurate with experience & qualifications, good personnel policies. Apply to: The Director of Nursing, St. Vincent de Paul Hospital, Brockville, Ontario.

Registered Nurses & Certified Assistants for General Duty in modern 105-bed hospital on the shores of beautiful Georgian Bay, 40-hr. 5 day wk., residence available. Apply: Director of Nursing, St. Andrews Hospital, Midland, Ontario.

Registered Nurses & Certified Nursing Assistants for 26-bed hospital. R.N. salary $290-$335. 28-day vacation after 1-yr. C.N.A. salary $210-$240, 2-wk. vacation after 1-yr., 3-wk. after 2-yr. Credit for past experience. $5.00 increment every 6-mo. 44-hr. wk., 8 statutory holidays. Room & board residence $28.50 per mo. 1-day sick leave per mo. Apply to: Mrs. G. Gordon, Superintendent, District Memorial Hospital, Box 37, Nipigon, Ontario.

Registered Nurses for General Duty in all departments including operating room. Apply to: Director of Nursing, General Hospital, Belleville, Ontario.

Registered Nurses for General Duty in modern 18-bed Private Hospital in iron mining town, 180-mi. north of Sault Ste Marie, Ontario. Excellent accommodation & personnel policies. Starting salary $268 minimum to $303 maximum for experience, less $20 per mo. maintenance. Transportation allowance after 6-mo. service. **Operating Room Nurse,** starting salary $288 minimum with postgraduate course, $323 maximum with 3-yr. experience or more. Apply: Superintendent, Miss O. Keswick, Lady Dunn Hospital, Jamestown, Ontario.

Registered Nurses (2) for General Duty in modern 90-bed hospital, salary $255 per mo., 3 annual increments, accumulative sick leave. Excellent recreational facilities in town near cities & resorts. Rooms & meals at reasonable rates. Apply: Director of Nursing, Dufferin Area Hospital, Orangeville, Ontario.

Registered Nurses for General Staff & Operating Room in modern hospital (opened in 1956). Situated in the Nickel Capital of the world, pop. 50,000. **Salary: $260 per mo.** with semi-annual merit increments, **plus annual bonus plan.** Recognition for experience. Excellent personnel policies. Assistance with transportation can be arranged. Apply Director of Nursing, Memorial Hospital, **Sudbury,** Ontario.

Registered General Duty Nurses. Salary: $230 per mo. 40-hr. wk. Apply Director of Nursing General Hospital, Cobourg, Ontario.

Registered General Duty Nurses for modern hospital, building expansion under way increasing to 100-beds this year. Starting salary $250 per mo., $215 for Graduates. 40-hr. wk., group life accident & sickness insurance free to employees. Opportunities for advancement, pleasant community. Apply: Director of Nursing, Leamington District Memorial Hospital, Leamington, Ontario.

Registered General Duty Nurses for 28-bed General Hospital. Salary & personnel policies in accordance with R.N.A.O. Adjacent attractive residence, recreation facilities. For further information please apply: Miss A. Burnett, Superintendent, Niagara Hospital, Niagara-on-the-Lake, Ontario.

Registered General Duty Nurses & Operating Room Nurses (Immediately) for 100-bed active hospital located 25-mi. from Toronto. 40-hr. wk., good salary, modern residence available. Apply: Director of Nursing, Peel Memorial Hospital, Brampton, Ontario.

General Duty Nurses for an accredited 64-bed hospital. Starting salary: $250-$260. Good personnel policies with sick leave benefits, holidays & paid vacations. Apply Director of Nursing, Douglas Memorial Hospital, Fort Erie, Ontario.

General Duty Nurses for 100-bed hospital. Salary $260 month with recognition for P.G. Courses, 44-hr. wk. at present. Up-to-date facilities in a beautiful location on the shore of Lake Erie. Residence available. Apply: Director of Nursing, General Hospital, Port Colborne, Ontario.

General Duty Nurses & Certified Nursing Assistants (Immediately) for 86-bed hospital, 40-hr. wk., 8 statutory holidays & other employee benefits. Collingwood is situated on Georgian Bay & is noted as a vacationland with 7-mi. sand beach along with great skiing on the Blue Mountains in winter. For further information apply: Director of Nursing Services, General & Marine Hospital, Collingwood, Ontario.

General Duty Nurses & Operating Room Nurse for new 105-bed hospital on shores of Georgian Bay. 40-hr. wk. For salary, rates & personnel policies apply: Director of Nursing, St. Andrews Hospital, Midland, Ontario.

The Roosevelt Hospital

428 WEST 59th STREET • NEW YORK 19, N.Y.

APPLICATION FOR APPOINTMENT
NURSING SERVICE DEPARTMENT

NAME (PRINT) .....

ADDRESS .....

.....

BIRTHDAY ..... MARITAL STATUS .....

WHERE REGISTERED .....

POSITION SOUGHT .....

DATE AVAILABLE .....

PROFESSIONAL BACKGROUND

BASIC NURSING & POSTGRADUATE COURSES	ADDRESS	DATE OF DIPLOMA OR DEGREE

EXPERIENCE (LIST MOST RECENT POSITION FIRST)

POSITION	HOSPITAL AND LOCATION	DATE

TRANSPORTATION FROM CANADA PAID UPON APPOINTMENT TO STAFF

COMMENTS:

PLEASE INDICATE IN NUMERICAL ORDER, NURSING SERVICE PREFERRED:

☐ MEDICINE ☐ MEDICINE & SURGERY ☐ PEDIATRICS
☐ SURGERY ☐ OPERATING ROOM ☐ GYNECOLOGY

SEND TO: DIRECTOR, NURSING SERVICE
THE ROOSEVELT HOSPITAL
428 WEST, 59th STREET
NEW YORK 19, NEW YORK

McKellar General Hospital, Fort William, Ontario has openings in all departments for **General Staff Nurses.** Basic salary $250 per mo., 40-hr. wk. Good personnel policies for other benefits. Resident accommodation available. Apply to: The Director of Nursing.

Graduate Nurses (Close to Metropolitan Toronto) for 120-active bed County Hospital with up-to-date facilities located in a friendly community, 1-hr. bus ride to downtown Toronto. Salary $245-$285, residence accommodation available. Adequate staffing & personnel policies. Apply: Director of Nursing, York County Hospital, Newmarket, Ontario.

Graduate Nurses & Certified Nursing Assistants for General Duty (Immediately) & positions to be filled on staff for new 58-bed hospital to be opened in early fall. Located in the centre of a summer vacation land. For information apply to: The Superintendent, Prince Edward County Hospital, Picton, Ontario.

Public Health Nurse for generalized program in an urban area. Minimum salary $3,200, allowance for experience, 5-day wk. annual increments, 4-wk. vacation, transportation provided, employer shared hospitalization, personnel policies furnished on request. Apply to: Dr. McColl Metcalfe, M.O.H., City Hall, Belleville, Ontario.

Public Health Nurse (Qualified) for generalized program in Etobicoke Township (suburb of Toronto). Minimum salary $3,570, starting salary based on experience. Car allowance $670 per annum. 4-wk. vacation after 1-yr. Pension Plan, P.S.I. & Blue Cross benefits. Apply: Director of Public Health Nursing, Township of Etobicoke, 550 Burnhamthorpe Rd., Etobicoke, Ontario.

Public Health Nurses (qualified) for generalized program, urban & rural. Salary $3,500 - $4,250, annual increment $150, pension plan, P.S.I., 4-wk. vacation. Apply: Archie F. Bull, M.D., D.P.H., Director, Halton County Health Unit, Milton, Ontario.

Public Health Nurses required in a generalized program in rural & semi-urban area adjacent to metropolitan Toronto. Excellent working conditions including pension plan, group insurance & transportation arrangements. Write: Dr. R. M. King, York County Health Unit, Newmarket, Ontario.

Public Health Nurses (Qualified) for a generalized program in the City of Oshawa. Salary range $3,500 - $4,370, annual increment $175, starting salary based on experience. 5-day wk., 4-wk. vacation, pension plan, group insurance, hospitalization & P.S.I. employer shared. Transportation provided. Apply: Dr. C. C. Stewart, Medical Officer of Health, 50 Centre Street, City Hall, City of Oshawa, Ontario.

Public Health Nurse (Qualified) for generalized program 20-mi. from Toronto. Salary $3,500 - $4,250 effective July 1st; allowance for experience, annual increment $150, 4-wk. vacation, cumulative sick leave, hospitalization & shared medical & surgical group in effect, pension plan. Apply: The Director, Ontario County Health Unit, (Southern Area), Pickering, Ontario.

Public Health Nurse for generalized program in urban-rural area. Minimum salary $3,300 with allowance for experience, annual increments $150, pension plan, hospitalization, P.S.I., 5-day wk. 4-wk. vacation, car allowance. Apply: D. V. Currey, St. Catharines-Lincoln Health Unit, St. Catharines, Ontario.

Public Health Nurse for generalized program. Basic salary $3,300 with annual increment of $175, other personnel policies on request. Apply to: Supervisor of Public Health Nursing, Oxford Health Unit, Woodstock, Ontario.

Registered Nurses & Certified Nursing Assistants for 160-bed hospital. Starting salary $255 & $180 respectively with regular annual increments for both. Excellent personnel policies & residence accommodation available. Assistance with transportation can be arranged. Apply: Superintendent, Kirkland & District Hospital, Kirkland Lake, Ontario.

Public Health Nurse for generalized program. Salary $3,500-$4,300, pension plan, hospitalization & sick leave. Apply to: Mrs. Gertrude Purcell, Director of Public Health Nursing, East York — Leaside Health Unit, Coxwell & Mortimer Avenues, Toronto 6, Ontario.

MONTREAL

Assistant Director of Nursing (with postgraduate experience in Tuberculosis Nursing) immediately; for 150-bed sanatorium. 40-hr. wk. Apply to: Director of Nursing, Grace Dart Hospital, 6085 Sherbrooke St. E., Montreal, Quebec.

Assistant Head Nurses excellent personnel policies. Apply Director, Shriners' Hospital for Crippled Children, 1529 Cedar Avenue, Montreal, Quebec.

Registered Nurses (2) by Institution for aged; good salary, personnel practices, references. Apply: Mrs. Angell, 4373 Esplanade Ave., Montreal, Quebec. VI. 5-2105.

QUEBEC

Registered Nurses (2) Immediately: to institute 40-hr. wk., for small General Hospital 40-mi. from North Bay, Ontario. Good salary in effect, 1-mo. annual vacation. Living accommodation $15 per mo. in nurses' residence. Pleasant community life with variety of winter & summer recreational activities. Please apply to: Hospital Matron, I. Irwin R.N., Canadian International Paper Company Temiskaming, Quebec.

Registered General Duty Nurses for 28-bed General Hospital in Huntingdon, Quebec, 45-mi. from centre of Montreal with excellent bus service. Gross salary $235 with full maintenance in nurses' home at $35; 3 increases at 6-mo. intervals to $250; 44-hr. wk., 8-hr. rotating shifts; 1-mo. annual vacation; 7 statutory holidays; 2-wk. sick leave, Blue Cross paid. Apply: Mrs. D. Hawley, R.N., Huntingdon County Hospital, Huntingdon, Que.

Registered Nurses. Excellent opportunities in **Private Nursing** are available in Bermuda. Rates similar to those in effect in Province of Quebec. For information regarding openings write to Matron, King Edward VII Memorial Hospital, Bermuda.

Registered Nurses for General Duty Staff. Salary commences at £46-0-0 per mo. with full maintenance. Transportation allowance. For full particulars apply Matron, King Edward VII Memorial Hospital, Bermuda.

Registered Nurses for Operating Room with operating room postgraduate courses and/or **experience, for 140-bed hospital. Travel allowance paid.** For particulars, write Matron, King Edward VII Memorial Hospital, Bermuda.

U.S.A.

Registered Nurses: Positions available in all areas & on all shifts. Ultra modern, new 254-bed General Hospital located in the heart of beautiful sunny Castro Valley, just 30 minutes drive from San Francisco. This is a busy residential community which offers casual California living at its very best. Many excellent schools & colleges within easy commuting distance. Progressive personnel policies include free hospital & surgical insurance, paid sick leave, paid vacations, 7 recognized holidays & other benefits. No split shifts, evening & night duty salary differential, also differential paid for operating room, delivery room & nursery service. Uniforms laundered free. Basic salary for general staff duty; $345 per mo. Salaries for other positons commensurate with assignments. Please write: Personnel Manager, Eden Hospital, 20103 Lake Chabot Road, Castro Valley, California.

Registered Nurses for modern 191-bed JCAH fully accredited General Hospital, expanding to 374-beds by 1960. Located on beautiful San Francisco Peninsula, 20-min. drive from the heart of the city. Openings in all services. Excellent personnel policies. Many extra benefits & opportunities for advancement. Top salaries. Apply: Personnel Director, Peninsula Hospital, 1783 El Camino Real, Burlingame, California.

Registered Nurses General Duty for 230-bed approved teaching hospital, resort city. Salary $315 plus $22.50 shift differential, provision for housing allowance. Apply: Director of Nursing, Cottage Hospital, Santa Barbara, California.

Attention! General Duty Nurses 400-bed County Hospital located 2 hr. drive from San Francisco, ocean beaches & mountain resorts in modern & progressive city of 35,000. 40-hr. 5-day wk., 3-wk. pd. vacation, 11-pd. holidays, pd. sick leave, retirement plan & social security. Accommodations in nurses' home, meals at reasonable rates, uniforms laundered without charge. Starting salary $341 per mo. plus shift & service differentials. Must be eligible for California Registration. Write Director of Nursing, Stanislaus County Hospital, 830 Scenic Drive, Modesto, California.

General Staff Nurses (Grow & develop with us) new 400-bed hospital under construction. Fully approved. Intern-resident program. Developing teaching center. Starting salary $330 per mo., $15 per mo. merit increases at 6, 12, 24 & 36-mo. 40-hr. wk., 2-wk. paid vacation, paid sick leave to 30 days; 7 paid holidays. One of Southern California's most outstanding locations. Apply: Director of Personnel, Seaside Memorial Hospital, 1401 Chestnut Avenue, Long Beach 13, California.

Staff Nurses 600-bed general & tuberculosis teaching institution in central valley City. Accredited State & Junior Colleges in immediate vicinity, liberal personnel policies. Full maintenance available. Write — Director of Nursing Service, Fresno County General Hospital, Fresno 2, California.

Staff Nurses for 300-bed General Hospital. Attractive personnel policies plus differential for specialties, afternoon & night duty. Opportunities for advanced education. Apply to Director of Nursing Service, Kaiser Foundation Hospital, Oakland 11, California.

Registered General Duty Nurses for 154-bed General Hospital with expansion program under way. Along the shores of Lake Michigan, 25 mi. from Chicago. Salary: $340 for days, $370 for evenings, $360 for nights, 5 day wk. Good personnel policies. Apply Personnel Director, Highland Park Hospital Foundation, 718 Glenview Ave., Highland Park, Ill.

General Duty Nurses for 320-bed General Hospital. Only a few blocks from Lake Michigan Beach & Lincoln Park; near Chicago Loop. Hospital accredited by J.C.A.H. & school of nursing accredited by N.L.N. Apartments available close to hospital. Liberal personnel policies. Must be eligible for Ill. registration; openings on all shifts. Write: Director of Nursing, Augustana Hospital, 411 W. Dickens Ave., Chicago 14, Illinois.

Operating Room Nurses (Days & P.M.) 154-bed General Hospital located in beautiful residential suburb along the north shore of Lake Michigan just north of Chicago. Modern ranch style nurses' homes with attractively furnished private bedrooms. 40-hr. wk., attractive salary & other employee benefits. Contact: Personnel Director, Highland Park Hospital Foundation, Highland Park, Illinois.

Emergency Room Nurse (3-11) for 154-bed General Hospital located in beautiful residential surburb along the north shore of Chicago. Starting salary $340 for days, $370 for evenings, $360 for nights, 40-hr. wk. Modern ranch style nurses' homes with attractively furnished private bedrooms. Contact: Personnel Director, Highland Park Hospital Foundation, Highland Park, Illinois.

Registered Nurses: Applicants must speak & write proficient English. Starting salary from $310 per month plus a differential for evening work. Apply to: The Personnel Director, The Gary Methodist Hospital, 1600 W. 6th Avenue, Gary, Indiana.

Registered Nurses for new 750-bed municipal hospital. Salary $3,700 per year with $100 yearly increments reaching maximum of $4,200; 40-hr. wk., vacation, sick time & 12 holidays, 1 meal & laundry of uniforms provided. Apply to: Director of Nursing, Martland Medical Center, Newark, New Jersey.

Registered Nurses (Oregon observing Centennial Year, packed with exciting activities, including International Trade Fair.) for 310-bed General Hospital affiliated with University of Oregon Medical School. **Staff Nurses** basic salary $309 with annual increases to $361. **Asst. Head Nurse** $316-$386, **Head Nurse** $385-$438, opportunities for advancement. Full-time evening & night nurses given asst. head nurse classification, plus $10. Paid vacations, sick leave, holidays, soc. security. Multnomah Hospital, Portland, Oregon.

Registered Nurses (free transportation) Spend your winter in the Sunny Southwest, in New Mexico — "The Land of Enchantment". Vacancies for staff duty in Medicine, Surgery, Obstetrics, Pediatrics & Operating Room. Starting salaries $300 per mo., $15 differential evenings & nights. Free transportation via 1st Class Air to Albuquerque & return in exchange for 1-yr. employment contract. Apartments available at $43 per mo., excellent job benefits, no shift rotation. Write or call: Director of Nursing, Presbyterian Hospital Center, 1012 Gold Avenue, S.E., Albuquerque, New Mexico, Phone CHapel 3-5611.

Graduate Nurses (Staff & Operating Room) for 88-bed modern accredited General Hospital. Liberal personnel policies, college town 30,000, 85% sunshine belt, altitude 3,860. Dry, mild, all year climate. Apply: Director of Nurses, Memorial General Hospital, Las Cruces, New Mexico.

Staff Nurses for 800-bed General Hospital, fully accredited, located on the university campus. Starting Salary $290 per mo. plus $50 differential for evening & night tour of duty. Apply: Director of Nursing, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia 4, Pennsylvania.

Registered General Duty Nurses (100-bed) Good bedside nursing required, 40-hr. wk., rotating duties. Excellent personnel policies. You arrange for R.I. State Registration. Apply: Nurse Director, Jane Brown Memorial Hospital, Providence 3, Rhode Island.

Registered Professional Nurses for 284-bed General Hospital located on the beautiful Corpus Christi Bay in Texas which is a pleasant tropical climate. Positions available include maternity, pediatric, surgical & medical nursing. General Staff starting salary for experienced nurses $275 per mo. with a charge of $25 per mo. for meal on duty & laundry of uniforms; $10 month differential for Assistant Head Nurse; evening & night shifts, opportunity for advancement; merit salary increases liberal personnel policies, 40-hr. wk. & $50 transportation allowance to be paid upon arrival. Apply: Director of Nursing Service, Memorial Hospital, P.O. Box 5008, Corpus Christi, Texas.

Texas: Registered Nurses, (English speaking) for rotating shifts. Salary $290-$315, 40-hr. wk., living facilities available. Hospital operated by Daughters of Charity. Apply: Director of Nursing Service, St. Paul Hospital, Dallas 4, Texas.

Staff Nurses (All services) Texas teaching hospital. Air conditioned; good personnel policies. Base salary-rotation $290 per mo. Evenings or night $304 per mo. Apply: Director of Nursing Service, University of Texas Medical Branch, Galveston, Texas.

General Duty Nurses for fully approved 390-bed County Hospital, affiliated with university schools of medicine & nursing. Starting salary $325, 40-hr. wk., liberal shift differential & other policies. For information write: Director Nursing Service, King County Hospital, Seattle 4, Washington.

General Duty Nurses (all 3 shifts) 7:30-3:30, 3:30-11:30, & 11:30-7:30; salaries $320, $340, $335 respectively. Time & ½ for overtime, excellent fringe benefits. All possible assistance given for obtaining reciprocity, visas & living quarters. Inquire: Director of Nursing, Providence Hospital, Seattle, Washington.

Operating Room Nurses, General Duty Nurses get away from fog, smog & industrial areas. Come to exciting wonderful Wyoming. 340-days sunshine, fresh air in year-round recreation area. Position vacancies, all shifts & types. 165-bed JCAH Hospital with expansion program. Capitol city, growing medical center. Wyoming, 50,000 pop. Home of Frontier Days & Warren Air Base. Metropolitan Denver 2-hr. drive from Cheyenne. Excellent personnel policies. 40-hr. wk., 2-3 wk. vacation, sick leave. New nurses' residence at reasonable rates. Excellent housing facilities within 10 min. of hospital. Excellent starting salaries. Apply. Director of Nursing, Memorial Hospital, Cheyenne, Wyoming.

Graduate Nurse for 26-bed hospital, gross salary $220 per mo. with annual increase less $32 maintenance, 28-day vacation after 1-yr. service, 10 statutory holidays per yr., 40-hr. wk. Obstetrical experience necessary. Apply stating references & experience if any, to: Matron, Victorian Hospital, Kaslo, British Columbia.

REGISTERED NURSES — $3,000 - $3,540

(According to Qualifications)

CERTIFIED NURSING ASSISTANTS — $2,040 - $2,400

SUNNYBROOK HOSPITAL, TORONTO **WESTMINSTER HOSPITAL, LONDON**

Pension Plan; three weeks' paid vacation; three weeks' accumulative sick leave; 5-day week; low-cost living in staff residence — for Nurses; application forms available at your nearest Civil Service Commission Office, or main Post Office, should be forwarded to the Civil Service Commission, 25 St. Clair Avenue East, Toronto 7, as soon as possible.

NURSES NEEDED IN NORTH

Registered Nurses for new modern 16-bed hospital, to start October 15, 1959. Starting salary $260 per mo. less $35 for full maintenance. Will pay train or bus fare 1-way. 1-mo. vacation with pay after 1-yr. service.

Apply to:

MUNICIPAL HOSPITAL, MANNING, ALBERTA.

Registered Nurses for General Duty in modern accredited 76-bed hospital, South Central California near Sequoia National Park. Beginning $315 per mo., annual salary increases. Excellent working conditions. Ideal community, winter & summer recreation. Transportation to hospital paid on suitable confirmation of employment. Must qualify for registration in California. For details, write: Administrator, Memorial Hospital at Exeter, Exeter, California.

Registered Nurses Salary $325-$360 in 18-mo., differential on p.m. shift $1.50, nights $1.00 Openings in Obstetrical & Medical-Surgical areas. Apply to: Personnel Department, Woman's Hospital, 432 E. Hancock Avenue, Detroit 1, Michigan.

School Nurse (Registered) for small infirmary in girls' private school 20-min. from N.Y.C., pleasant opportunity. Apply: P.O. Box 308, Summit, New Jersey.

Staff & Head Nurses for large modern tuberculosis hospital in suburban Cleveland. Nurses eligible for Ohio registration start at $355 monthly with ½-yearly increments. Evening nurses receive $1.50 extra daily & night nurses $1.00 extra daily. Attractive completely furnished 2-bedroom homes available for 2 single nurses or a married nurse & family. 40-hr. 5-day wk., paid vacation & 6 holidays, liberal sick leave cumulative to 90-day. Excellent retirement plan. Approved by joint committee on accreditation of hospitals. Write: Director of Nursing Service, Sunny Acres Hospital, Cleveland 22, Ohio.

ONTARIO

Clinical Teacher & general duty in operating room. Apply: Director of Nursing Service, Hotel Dieu Hospital, Kingston, Ontario.

Public Health Nurses (Qualified) for **Victorian Order of Nurses (Ottawa Branch).** Minimum salary $3,480, consideration given to past experience. Annual increments, 5-day wk., 4-wk vacation, $75 uniform allowance, PSI & supplementary Blue Cross available. Pension plan benefits. Apply: Director, 226 Sparks Street, Ottawa 4, Ontario. CE 2-2661.

General Duty Nurses (all departments) for 350-bed General Hospital, gross starting salary $255 per mo., 40-hr. wk. Apply to: Director of Nursing, The Doctors Hospital, 45 Brunswick Ave., Toronto, Ontario.

Operating Room Staff Nurses for modern well equipped department, gross starting salary $255 per mo., rotating hours of duty. Apply to: The Director of Nursing, The Doctors Hospital, 45 Brunswick Ave., Toronto, Ontario.

Instructor (Qualified) for the School of Nursing. Duties to commence September 1, 1959. Kindly apply to Director of Nursing, St. Joseph's Hospital, Peterborough, Ontario.

Public Health Nurse qualified for generalized program. Salary open, allowance for experience. Annual increments $150, 5-day wk., shared benefits, pension plan, car provided or allowance. Apply: G. Q. Sutherland, M.D., D.P.H., City Hall, Guelph, Ontario.

Head Nurse for small Pediatric Unit. Apply giving (2) names for reference purposes & state salary expected to: The Director of Nursing, Plummer Memorial Public Hospital, Sault Ste. Marie, Ontario.

Registered Nurse (September 1,) for Margaret Cochenour Memorial Hospital (modern 15-bed) located on lake in Red Lake mining & tourist area. New nurses' residence beautifully furnished. Salary $300 basic with increment plan. Maintenance including uniform laundry, $30 per mo., 44-hr. wk., holidays, 4-wk. vacation with pay yearly, transportation expense will be paid after 6-mo. employment. Apply stating age & references: I. MacNaughton, Matron, Cochenour, Ontario.

GENERAL DUTY NURSES
FOR ALL DEPARTMENTS

Gross salary $255 monthly ($117.50 bi-weekly) if registered in Ontario, $235 monthly ($108.20 bi-weekly) until registered. Annual increment $10 monthly ($4.60 bi-weekly) for three (3) years. Rotating periods of duty, 40-hr. per wk., 8 statutory holidays. 14-days vacation & 12-days leave for illness with pay after 1-yr. Pension plan available. Ontario Hospital Insurance with Blue Cross supplemental & Physicians' Services Incorporated, partial payment by hospital.

APPLY

DIRECTOR OF NURSING, GENERAL HOSPITAL, OSHAWA, ONTARIO.

REGISTERED NURSES
FOR THE OPERATING ROOM, OBSTETRICAL AND MEDICAL SURGICAL UNITS OF A 350-BED GENERAL HOSPITAL

Gross salary $260 - $290 per month if registered in Ontario.
Differential of $10 for evening and night duty.
40-hour week. Sick leave cumulative to 30 days.
3 weeks vacation and eight statutory holidays.

Apply:

DIRECTOR OF NURSING SERVICES,
METROPOLITAN GENERAL HOSPITAL, WINDSOR, ONTARIO

THE PETERBOROUGH CIVIC HOSPITAL
REQUIRES

AN OBSTETRICAL INSTRUCTRESS,
NURSES FOR GENERAL DUTY IN ALL SERVICES.

For further information write:

THE DIRECTOR OF NURSING
PETERBOROUGH CIVIC HOSPITAL, PETERBOROUGH, ONTARIO

DIRECTOR -- SCHOOL OF NURSING

For a School of 90 students, organized independently of Nursing Services. The school program follows the pattern of 2 years of nursing education plus 1 year of internship.

Salary: $5,400-$6,000 per annum.

Requirements: Degree & experience in the administration of a nursing education program.

Apply to: R. Buckner, Administrator,

Metropolitan General Hospital
Windsor, Ontario